Exploring the access and influence of Edu TV and radio programs on the learners' self-directed learning among the grade 12 learners enrolled on distance mode at Namibian College of Open Learning (NAMCOL)By: Erestine Nenghwanya

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COMPULSORY DECLARATION

This work has not previously been submitted in whole or part, for the award of any degree. It is my work. Each significant contribution to, and quotation in this dissertation from the work, or works, of other people, has been attributed and has been cited and referenced.

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ABSTRACT

This research study focused on the issue of access to flexible learning and the use of technology (radio and TV) to assist in the learning process. The study was aimed at measuring the influence of these technology services among grade 12 learners enrolled on distance mode at Namibia College of Open Learning (NAMCOL). The majority of distance education systems around the world have the same general structure of guiding students, which are based primarily on student-centered learning that demands a learner to work independently. Regular lecturing facilities for distance learners are only possible in scheduled workshops at study centers. These provisions are however, inconvenient since most distance learners are working people, as well as inadequate to provide the necessary educational guidance to distance learners. In situations where regular interaction between teacher and student is limited or not possible, the media plays a vital role in providing educational assistance to these learners. NAMCOL, as an institution, has embraced the concept of utilizing media to assist distance learners with programs such as Edu TV and Radio Programmes as well as Online resources.

Self-directed learning theories and Malcolm Knowles's theory of Andragogy were used as the theoretical frameworks for the study. In exploring access and influence of Edu TV and radio program on the learner's self-directed learning among the grade 12 learners enrolled at distance mode at Namibian College of Open Learning (NAMCOL), the researcher employed several research strategies to measure the influence that flexible programs have on learners. The research strategies employed in the study included questionnaires and interviews, which were used to yield both qualitative and quantitative research data.

The main findings of the study were that the flexible learning policy implemented by NAMCOL is proving successful in affording distance learners access to Edu TV and radio program services. All participants indicated that the lessons were informative. Furthermore, it helps learners to assume responsibility for their learning. However, additional efforts from all stakeholders are required to keep up with the ever-expanding demand for ODL platforms. The study further revealed that implementing appropriate Andragogy fostered self-directed learning. In light of the findings of the research and the Andragogy applied, even though learners have access to the Edu programs, the lack of physical and appropriate technologies can impact negatively. For example, you can be self-directed, but if there are physical constraints and challenges in the pedagogy, the learners are demotivated to be self-directed.

KEYWORDS

Self-directed learning; Access; Open and Distance Learning; Educational technology; Andragogy; Edu TV/Radio Programs or lessons.

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DEDICATION

I dedicate this thesis to my late twin sister Sarlote Nambahu Endjala. She is my inspirational role model, fearless, and visionary woman she was.

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ACRONYMS AND ABBREVIATION

AVU	African Virtual University
CES	Centre for External Studies
DEASA	Distance Education Association for Southern Africa
Edu	Education
ERBS	Education Radio Broadcast Schedule
ERP	Education Radio Project
ETSIP	Education and Training Sector Improvement Programme
HoC	Head of Centre
ICDL	International Computer Driver's Licence
ICT	Information and Communication Technologies
MBEC	Ministry of Basic Education and Culture
MoE	Ministry of Education
MS	Word Microsoft Word
NAMCOL	Namibian College of Open Learning
NBC	Namibian Broadcasting Corporation
NIED	National Institute for Educational Development
NOLNet	Namibia Open Learning Network Trust
NPL	National Policy on Adult Learning
NSSC	Namibia Senior Secondary Certificate

NUST-COLL	Namibia University of Science and Technology
ODL	Open and Distance Learning
OER	Open Education Resources
SADC	Southern African Development Community
SDL	Self Directed Learning
SSS	Senior Secondary School
TV	Television
UCT	University of Cape Town
UNAM	University of Namibia
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNISA	University of South Africa

CHAPTER ONE

INTRODUCTION

Introduction

This study is an exploration of the access and influence of Edu TV and radio program on the learner's self-directed learning among the grade 12 learners enrolled on distance mode at Namibian College of Open Learning (NAMCOL). NAMCOL is a State Owned Educational institution created by an Act of Parliament (Act 1 of 1997) to provide learning opportunities for adults, and out-of-school youths (Möwes, 2008). The study was motivated by the fact that the researcher felt that the institution had placed more efforts and resources in place to developing various learner support programs such as Edu TV and Radio Programmes, which the researcher felt are underutilized by the learners. A qualitative research methodology was adopted in the study through the use of open-ended questionnaires and in-depth face to face interviews to explore the above.

As a distance education institution, NAMCOL has adopted "flexible learning" programs. This term can be defined as the notion that students gain access and flexibility regarding at least one of the following criteria: time, place, pace, learning style, content, assessment, and learning path as described in its programs. NAMCOL has adopted the following technologies as a means to advance the policy of flexible learning, namely Television lessons, Radio lessons, and online resources. This thesis explored the level of access to flexible learning facilities for NAMCOL learners and its influence on self-directed learning in the northern region of the country. This chapter presents the introduction, background of the study, the rationale of the study, problem statement, research objectives, and critical questions, and the significance of the study. The final part of this chapter will give a highlight of the thesis outline, definition of concepts followed by the summary of the chapter.

Background of study

Namibia is a country with a small population of 2.5 Million people as recorded by (Namibia Statistics Agency 2011). This low population, coupled with the vast geographical area of the country, gives it a population density of only 2.9, making it one of the least populated countries

in the world. As a result, most people live in dispersed communities most of them in rural areas (Möwes, 2008).

Following a protracted armed struggle for liberation, Namibia gained its independence from the colonial apartheid government of South Africa in 1990 (Leys, et al., 2005). The illegal and repressive apartheid regime left as its legacy an educational system shaped by divisive and dehumanizing imperialist policies. The apartheid dispensation, which was responsible for inequitable funding, resources, and access to education, left as its legacy teachers with eight to ten years of schooling, student-teacher ratios of 60:1, and dropout and failure rates of 82 percent (Amukugo, 1993). As the government dismantled the discriminatory and inequitable Bantu educational system, the newly independent Namibian government embarked upon the process of developing a new praxis. Modeling their transformed educational system along with democratic, empowering, and reconstructive lines, the Namibian government-mandated reforms based upon the goals of access, equity, quality, and democracy (MEC, 1993). These reforms and other socio-economic considerations have implications for the development and implementation of distance education programs in Namibia (Visser, 2003).

In response to the learner's needs outlined above, and in addition to what has already been mentioned in the earlier sections of this introduction, the Namibia government has, since independence, established four public - sector institutions that should provide and continue to provide Open and Distance learning (ODL) programs in the country. The first of these institutions is the Centre for External Studies (CES) at the University of Namibia, which provides tertiary level ODL programs for students who cannot attend full-time courses at the University's main campus in Windhoek. Secondly, the Namibian College of Open Learning (NAMCOL) which offers In-Service teachers' refresher courses and training on curriculum development and implementation. NAMCOL further provides secondary education and tertiary level programs to adults and out of school youth. (Namibian College of Open Learning, 2011)

NAMCOL was also established to provide learning opportunities for adults and out-of-school youths to redress past injustice in the education system in Namibia. Various NAMCOL centers across the nation reach out to the vast majority of learners in need of education. NAMCOL established and adopted multiple technologies to advance the policy of flexible learning: Offering Edu TV and Radio Programmes, online and offline lessons. However, the researcher felt that the learners do not have much access to these programs as anticipated by the College.

The Rationale of the study

NAMCOL as a publicly funded institution responded to the government's call as stated in the National Policy on Adult Learning (NPL) (2003) that for Namibia to become a learning nation it is vital to develop all possible approaches to enable adults to learn where, when and at whatever pace they wish. The Namibian government aims to make it possible for adults to have opportunities to learn through computer-based information and communication technologies (ICTs), through the mass media and the organized provision of open and distance learning, flexible programs (Jung, 2008).

Just as it was envisaged by NPL, NAMCOL established the educational channel, namely, EDU TV in partnership with NETV and NBC in 2014. Edu TV operates on channel 6 of the NBC digital decoder. Video lessons in different grade 10 and 12 subjects produced by NAMCOL are aired on EDU TV. In addition, lessons from Mindset learn South Africa were sourced to supplement the content. Ninety (90) video lessons in the following subjects: Junior Secondary Certificate (JSC): Entrepreneurship, Life Science, English, History, and Mathematics: National Senior School Certificate (NSSC): English, Agriculture, and Mathematics were produced and broadcast through the National and One Africa televisions (NAMCOL, 2014- 2015).

The Education Radio Project (ERP) was initiated in 2004, with membership coming from stakeholders such as the Ministry of Education (MoE) (Directorates Adult Education and NIED), University of Namibia (UNAM) (Centre for External Studies); Namibia University of Science and Technology (NUST) (Centre for Open and Lifelong Learning); Namibian Open Learning Network (NOLNET), NAMCOL, and the Namibia Broadcasting Corporation (NBC). While government ministries use radio for information sharing and public education, educational institutions are using radio to supplement print-based materials.

Radio lessons are broadcast by various radio channels in Namibia. So far, more than ninety (90) programs were developed and are transmitted. The campus radio was also launched, and listening points were installed at all regional offices countrywide. Learners and visitors can now listen to the broadcast at their various regional offices while the public can connect and listen via the Internet. The Edu TV and Radio programs Schedules are readily available to all NAMCOL leaners. NAMCOL Website, advertised in local media (NAMCOL 2014-2015).

Radio and Television are essential sources of adult learning. However, to date, the use of mass media in adult learning is very limited in Namibia. Namibia's TV and Radio Educational Programmes by NAMCOL are a relatively new initiative in the country although they are old modes- mainly used in the less developed countries. Internet infrastructure in less developed countries is weak with low bandwidth, and people do not have access to reliable internet, and even though they may have cell phones, but not necessarily good enough to download materials. These modes of delivery come with disadvantages of broadcast as both Television and radio do not provide for real-time two-way interaction between presenters and participants. These media, however, can be used to instruct a vast number of students at the same time, even though the students cannot call back and clarify a statement or ask a question in real-time (Bates, 2010).

NAMCOL identified radio and TV programs as the strategic tools to provide access to quality and flexible learning education to its learners, especially those registered on distance mode and live in remote areas. With all the efforts and resources being invested in the development of flexible learning, most studies have focused mainly on ICT within the ODL institutions with little or no studies being conducted on the use of audio-visual services such as Radio and TV in ODL programs. Therefore, the primary purpose of this research study was to explore the access to Edu TV and Radio programs by NAMCOL youth and adult learners enrolled in distance mode. The study further served to investigate the influence that these programs have on the NAMCOL learner's self-directed learning. As indicated earlier, NAMCOL Edu TV and Radio programs are new initiatives in the country. The study provides empirical evidence on access issues that are generally taken for granted by designers of these programs and suggested recommendations to NAMCOL for areas for improvement in terms of Edu TV and Radio program.

Definition of Concepts

Several operational concepts and terms have been defined for this study. These are as follows:

Access to Edu TV and radio programs: Means to obtain information for the creation and dissemination of knowledge using the appropriate technologies (UNESCO, 2015).

Influence: Is a change in beliefs and values, attitudes, and behaviour of a person resulting from the action of another using resources (French and Raven, 1959).

Provision of Flexible Learning Programs: The notion that students gain access to flexibility regarding at least one of the following criteria: time, place, space, learning style, content, assessment path (Pellegrino, 2001).

Distance Education Technologies: Based on technological, structural, and financial capabilities, a limited variety of technologies are applied in higher education distance learning systems. Print media (textbooks, study guides, study aids, and newspapers), audio media (Audio-books, audio-cards, records, audio-cassettes, reel-to-reel audiotapes, audio Compact-discs (CDs), telephones, cell phones, audio-texts, radios), and video media (Televisions, satellites, direct broadcast satellites, cable televisions, closed-circuit televisions, asynchronous and synchronous Podcasts, and vodcasts, teleconferences, microwaves, interactive videos, teletexts, videotext, computer internets, weblogs (blogs), electronic mails, chatrooms, and multimedia) are used to convey messages in terms of specific educational objectives to deliver and disseminate instructional materials to learners who are employed in NAMCOL (Towhidi, 2010).

Information Communication Technology (ICT): This is an umbrella term that describes a diverse set of technological tools and resources used to communicate and to create, disseminate, store and manage information (Tinio, 2002). These technologies include, among others, computers, and network hardware and software, mobile phones, faxes, and broadcasting technology such as radio, television, and interactive whiteboards (MoE, 2005).

Andragogy and Self – Directed Learning: Andragogy is the art or science of helping adults learn by Malcolm Knowles, coupled with self-directed adult learning concepts.

Namibia Senior Secondary Certificate Ordinary (NSSC): This is the school-leaving, externally accredited examination, taken by Grade 12 learners in Namibia (MoE, 2010).

Junior Secondary Certificate Ordinary (JSC): This is the externally accredited examination, taken by Grade 10 learners in Namibia (MoE, 2010).

NAMCOL Centre: A center where NAMCOL tutorials take place, e.g., Eenhana SSS center (NAMCOL, 2011).

Problem Statement

The NAMCOL secondary school education program is intended for grade 10 learners who have failed to obtain the minimum required 23 points in 6 subjects and for grade 12 learners who have not achieved the minimum 25 points in 5 subjects needed to enter university. NAMCOL is designed to give these learners a chance to improve their grades outside the formal education system, which allows these learners to then return into the formal education system as grade 11's or to enable the grade 12's National Secondary School Certificate (NSSC) to qualify for the tertiary institutions. It is open to both out-of-school youth and adults. The objective is to allow this target group to study at their own pace and convenience to complete their JSC and NSSC subjects. This approach to learning can be termed Flexible learning, which is a mode of study as you can choose when and where you study – from home, in the office, or anywhere in the world! There are no timetabled classes to attend, which means you can fit studying for a qualification around your other commitments. As stated above, NAMCOL fits well with the description and definitions by Edwards and Clarke (2002) that flexible organizations and flexible learning programs/opportunities seem to imply that the process of teaching and learning can be liberated from the constraints of time and place. This assumption is that flexibility results in a supply of lifelong learning opportunities where learners can learn at a time in a location convenient to them.

As an adult education practitioner and area coordinator for the Namibian College of Open Learning (open schooling), I have observed and witnessed over the years that NAMCOL has put necessary systems and resources in place to enhance the provision of flexible learning programs by use of technologies for its learners, in particular, those enrolled in distance mode and who are not able to attend face to face tutorials let alone vacation workshops. NAMCOL has invested in setting up computer centers and developed e-learning materials, including the Open Education Resources (OERs), Radio and Television lessons were established and are being broadcast via the national, local radio and TV stations in the country (Haufiku, 2010). The campus radio at NAMCOL Head Office was officially launched during 2015, and listening points were installed at all regional offices countrywide. Learners and visitors can listen to the broadcast at their various regional offices while the public can connect and listen via the

Internet. (NAMCOL 2014-2015) Because of the inputs, as explained above, it is a general expectation from the college and other stakeholders that learners should make use of the flexible learning programs provided to them. In this study, I wish to explore whether grade 12 learners enrolled in distance mode and have access to NAMCOL Edu TV and Radio programs, make use of these technologies. I question the assumptions that flexibility results in a supply of lifelong learning opportunities where learners can learn at a time and in a place convenient to them. I further question the influence of Edu TV and radio program on self-directed learning among the grade 12 learners at Namibian College of Open Learning.

Research Objectives

The objectives of the study were:

1. To explore the access and influence of Edu TV and radio program on the learners self-directed learning among the grade 12 learners enrolled on distance mode at Namibian College of Open Learning (NAMCOL)
2. To find out which challenges inhibit learners from accessing Edu TV and Radio Educational Programmes.
3. To explore factors that influence self-directed learning among the grade 12 learners at Namibian College of Open Learning (NAMCOL).
4. To contribute to knowledge on the influence of open learning programs on learners.
5. To make recommendations to improve access and influence of Edu TV and radio program on the learners self-directed learning among the grade 12 learners at Namibian College of Open Learning (NAMCOL)

Research Questions

The main research question of the study is as follows:

1. Do NAMCOl learners have access to Edu TV and radio program and what influence do these services have on the self-directed learning of grade 12 learners enrolled on distance mode at Namibian College of Open Learning (NAMCOL)?

The sub-questions for the study were as follows:

1. What are the challenges that inhibit learners from accessing Edu TV and Radio Educational Programmes?
2. What influence do these have on the learners' self-directed learning among the grade 12 learners at Namibian College of Open Learning (NAMCOL)?
3. What recommendations can be made to improve access and influence of Edu TV and radio program on the learners' self-directed learning among the grade 12 learners at Namibian College of Open Learning (NAMCOL)

Significance of the study

This study will be significant to NAMCOL, its learners, and the Ministry of Education. The findings of the study will allow NAMCOL to be efficient and cost-effective when planning the future learner's support programs such as Edu TV and Radio programs. Recommendations made from this study may help to increase learner's accessibility to the Edu TV and Radio programs offered by NAMCOL. This means that more learners will have unlimited access to improved facilities and become more productive in their studies. The ministry will benefit in that the programs will be a shared resource used by both formal and non-formal (NAMCOL) learners to improve the general passing rate for grade 12 in the country as a whole.

The Thesis Outline

This thesis is structured as follows:

Chapter One: Introduction covers the background of the study, problem statement, and aim of the study, research objectives, questions, and the significance of the study. Also, this chapter presents the definitions of concepts and summary.

Chapter Two: Presents the theoretical framework of the study, together with a comprehensive review of literature for the research on the use of technology in distance learning.

Chapter Three: Research Methodology presents the methods and instruments used to collect the data and how the analysis of the data was done to come up with the conclusions.

Chapter Four: Results, discussions, analysis, and interpretation of findings cover the findings in the form of tables and figures. Discussions of the key findings are also included, and the theoretical framework of the study was also used to interpret the findings.

Chapter Five: Conclusions and Recommendations cover the key conclusions and recommendations drawn from the findings in chapter 4

Summary

This chapter gave an introduction to the background of the study as well as a short general overview of initiatives of ODL institutions in Namibia, particularly those of NAMCOL. This chapter also introduced the concept of flexible learning as the driving force behind the implementation of the Audio/Visual technologies as well as Online-resources for the Namibian education sector. This concept is, however, further expanded in the chapters ahead. Also, the chapter presented the statement of the problem, research questions, significance of the study, and the definition of terms. The next chapter provides historical context, a review of the literature, and a theoretical framework on which this study was based.

CHAPTER TWO:

LITERATURE REVIEW

Introduction

This chapter covered the theoretical framework of the study and provides a comprehensive review of the literature on access to and the influence of Edu TV and radio programs on learner's self-directed learning. The reviewed literature mainly focussed on the background of the education system in Namibia, the historical context of ODL in Namibia. It also reviews the access and constraints to educational technologies used in learning, recommendations to improve access and influence of Edu TV and radio programs on the learners' self-directed learning and student Services offered by NAMCOL to distance learners. The chapter further reviews literature on a number of African countries that have implemented Edu TV and radio programs. A summary of the chapter is provided at the end of the chapter.

Theoretical Framework

In the late 1960s and early 1970s self-directed learning (SDL) first appeared as a distinct form of study in adult education, and it became a major theme of research in adult pedagogy (Merriam& Caffarella 2012). Over the following four decades, research has identified different goals for SDL, such as the development of the learner's capacity to be self-directed; the fostering of transformational learning; and the promotion of emancipatory learning and social action. This led to the development of several educational models (Merriam & Caffarella, 2012).

Knowles (1990) describes SDL as "a process in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes." The most widely accepted approach has been described by Knowles as Andragogy. The research has adopted the theory of Andragogy as the art of science of helping adults learn by Malcolm Knowles coupled with self-directed adult learning concepts with the focus on ways in which institutions and programs can modify student services and course delivery formats and systems to accommodate the needs of

re-entry students. This theory also provides insight into understanding the characteristics of these learners within the distance education environment (Knowles, 1990.).

In recent decades, several theoretical approaches to adult learning have served as useful lenses for research on adult learners; these frameworks help researchers think about practices across various contexts of adult learning, including the college classroom. Andragogy is arguably the best-known of these theoretical approaches. Malcolm Knowles is credited with bringing this framework to attention in North America, although he acknowledged its previous European origins (Knowles 1990).

According to Knowles' (1990:17) framework, adults are assumed to:

- Prefer self-direction in learning,
- Bring a vast reservoir of experience that should be considered in planning the learning experience.
- Exhibit a readiness to learn that is based on a need to know something or do something
- Exhibit an orientation to learning that is task- or problem-cantered.
- Exhibit a relatively high degree of internal motivation.

According to the assumptions listed above, Knowles was convinced that adults learned differently from children. As a result, this encouraged him to pursue the research and studies which evolved into the distinctive theory of andragogy that has been adopted extensively in the field of Adult education. However, this distinction is currently waning and not as popular as before. Knowles' previous work on informal adult education had highlighted some elements of process and setting. Similarly, his charting of the development of the adult education movement in the United States had helped him to come to some conclusions about the shape and direction of adult education. What he now needed to do was to bring together these elements. The mechanism he used was the notion of andragogy (Knowles, 1990.).

While the concept of andragogy had been in spasmodic usage since the 1830s, it was Malcolm Knowles who popularized its usage for English language readers. For Knowles, andragogy was premised on at least four crucial assumptions about the characteristics of adult learners that are different from the assumptions about child learners on which traditional pedagogy is premised.

Knowles (1990) added a fifth characteristic which has the following aspects:

- Self-concept: As a person matures, his self-concept moves from one of being a dependent personality toward one of being a self-directed human being.
- Experience: As a person matures, he accumulates a growing reservoir of experience that becomes an increasing resource for learning.
- Readiness to learn: As a person matures, his willingness to learn becomes oriented increasingly to the developmental tasks of his social roles.
- Orientation to learning: As a person matures, his time perspective changes from one of postponed application of knowledge to immediacy of application, and accordingly, his orientation toward learning shifts from one of subject-centeredness to one of problem centeredness.
- Motivation to learn: As a person matures the motivation to learn is internal

Each of these assertions and the claims of difference between andragogy and pedagogy is the subject of considerable debate (Davenport, 2002). Merriam and Caffarella (2012) have pointed out that Knowles' conception of andragogy is an attempt to build a comprehensive theory (or model) of adult learning that is anchored in the characteristics of adult learners. (Merriam and Caffarella, 2012).

Knowles (1990) makes extensive use of a model of relationships derived from humanistic clinical psychology - and, in particular, the qualities of good facilitation argued for by (Rogers, 2012). However, Knowles (1990) adds in other elements that owe a great deal to scientific curriculum creation and behavior modification. These encourage the learner to identify needs, set objectives, and enter learning contracts. In other words, he uses ideas from psychologists working in two entirely different and opposing traditions (the humanist and behavioral traditions).

It is, however, not clear whether this is a theory or set of assumptions about learning, or a theory, or a model of teaching, as some researches have questioned (Beukes, 2006; Bbuye & Resty, 2013; Bates, 2010). The uncertainty of andragogy can be seen in the way Malcolm Knowles has chosen to define andragogy as the art and science of helping adults learn as opposed to the definition of the theory of pedagogy, which states that it is the “art and science of teaching children”(Halupa, 2015:143). Several observers such as (Hartree, 1984) in his work

titled Malcolm Knowles' theory of andragogy, A critique: has rightly asked if Knowles provided us with a theory or a set of guidelines for practice.

The assumptions of the theory can be read as descriptions of the adult learner or as prescriptive statements about what the adult learner should be like. As Jarvis (1987) comments, throughout his writings, there is a propensity to list characteristics of a phenomenon without interrogating the literature of the arena (as in the case of andragogy) or looking through the lens of a coherent conceptual system (Cook, 2002). Undoubtedly Malcolm Knowles had several essential insights, but because they are not tempered by thorough analysis, they were a hostage to fortune - they could be taken up in a historical or a theoretical way.

Table 2. 1 A comparison of the assumptions of pedagogy and andragogy following Knowles (Hartree, 1984).

	Pedagogy	Andragogy
The learner	The teacher directs what, when, how a subject is learned and tests that it has been learned	Moves towards independence. Self-directing. The teacher encourages and nurtures this movement
The learner's experience	Of little worth. Hence teaching methods are didactic	A rich resource for learning. Thus teaching methods include discussion, problem-solving, etc.
Readiness to learn	People learn what society expects of them, so the curriculum is standardized.	People learn what they need to know so that learning programs organized around life applications.
Orientation to learning	Acquisition of subject matter. Curriculum organized by subjects.	Learning experiences should be based around experiences, since people are performance cantered in their learning

In light of the current study, andragogy is relevant to this study because the students under investigation are adult learners. The research seeks to understand how the adult learners at NAMCOL are utilizing the flexible learning program such as Edu TV and radio programs

during their self-directed learning processes. Since these students are not exposed to full-time face to face classes with tutors.

Andragogy could refer to the issues of access to flexible learning programs in distance education that is the focal point of this study as it focuses on ways in which institutions and programs can modify student services and course delivery formats and systems to accommodate the needs of re-entry students. The Edu TV and Radio programs that are being dealt with in the study are the course delivery formats in the flexible learning environment by distance students as stated. A well-established definition of flexible learning is the notion that with flexible learning, students gain access and flexibility regarding at least one of the following criteria namely: time, place, pace, learning style, content, assessment, learning path (Nyandara, 2012).

Definition of the principal terms used in this study

Access: in education, the term **access** typically refers to how educational institutions and policies ensure or at least strive to ensure—that students have equal and equitable opportunities to take full advantage of their education (Glossary of education reform, 2014).

Influence: Is a change in beliefs and values, attitudes, and behavior of a person resulting from the action of another using resources (French and Raven (1959).

Student perspective: Through flexible learning, students gain the possibility of a more self-directed way of learning, addressing the shift from teaching to learning (Leys, et al., 2005) and focusing on responsible self-regulated ways of learning (Zimmerman & Schunk, 2011). Flexible learning should enable students to be in charge of their learning process, a necessity for the competence of life-long-learning.

Institutional perspective: means a change in how teaching and learning are organized. For example, the content has to be provided in a way that students can access anywhere and anytime. This is the most fundamental way of flexible learning. With this understanding in mind, it is often used synonymously with terms like e-learning, open learning, distance, or blended learning (Tucker & Morris, 2011).

Background of the education system in Namibia

Namibia, formerly known as South West Africa, is regarded as Africa's last colony. It was first colonized by Germany in 1884, and in 1915 was brought under South African control after the First World War, and became an independent state on 21 March 1990 (Nunan, et al., 2000) Namibia has a total land area of 825 000 square kilometers on the southwest coast of Africa. It is bordered by Angola and Zambia (north), Botswana (east), South Africa (south), and the Atlantic Ocean (west). It has an estimated population of about 2.5 million people (NSA, 2011), which represents one of the lowest population densities on the African continent, amounting to an average of 3.3 people per km². Three-quarters of the population live in rural areas, which are characterized by limited housing, limited access to potable water and sanitation, and most significantly sparsely distributed education facilities (Ministry of Basic Education, Sports and Culture, 2013).

The majority of schools are quite some distance from each other. Even where schools are quite close to each other, they may also experience isolation. Neighboring schools may have little contact because they often serve learners that come from different socio-economic backgrounds or language groups, or the schools may offer different phases, for example as primary or secondary schools. All of this isolation means that schools are seldom visited by colleagues from other schools, or by inspectors, advisory teachers, and other regional managers. Moreover, road conditions are often inadequate, vehicles are in short supply, budgets for travel are depleted, there are too few inspectors and advisory teachers, and they are often too busy or preoccupied with other matters (Möwes, 2008).

Recognizing that knowledge and power are inseparably connected and interrelated in the achievement of subjugation (Taylor, 2004) under apartheid, the Bantu educational system was designed to entrench the privileged position of the white minorities. To maintain social, economic, and academic segregation, the architects of apartheid fragmented Namibia (then known as South West Africa) into eleven education authorities based upon ethnicity. Designed to inculcate racism, the philosophy underlying the apartheid-era educational system was premised upon the notion that Blacks were incapable of learning mathematics and science (Kasanda & Shaimemanya, 2003).

The Bantu Educational system ensured that the colonial power would be provided with a steady supply of semi-literate, subservient farm and house laborers (Christie & Collins, 2006). Informed by a belief that indigenous Namibians were not qualified to make decisions and shape their destiny, very few Black students were offered academic courses (Angula & Lewis, 2000). Since this system was exam-driven, it further marginalized and disadvantaged indigenous Namibian students by ensuring that only a small number of privileged students would succeed.

All in all, the education system was divided along racial and ethnic lines, thereby leading to an extraordinarily skewed and unequal allocation of resources for the different ethnic authorities. During the apartheid regime, the majority of black children had to stay out of school or compete for the few places in their designated schools. To further widen the inequalities and the apartheid state machinery, only a few, ill-equipped, poorly staffed, and under-financed schools were made available for black children. Before independence, the average teacher to learner ratio was more than 1:55 and 1:45 for primary and secondary levels respectively, especially in the previously disadvantaged regions, compared with less than 1:30 learners for their affluent peers in white schools (Chirimbana, 2014). The teacher and learner ratios in the post-independence state could have been even higher if all primary school-age children in Namibia had access to education opportunities.

During the apartheid era, the expenditure per pupil was six times more in white schools compared with black schools. Before Namibia's independence in 1990, the country experienced forced labor in various forms. The vestiges of this system have resulted in high unemployment, and inadequate skills base, and a large percentage of out-of-school youth (Chirimbana, 2014). After independence in 1990, the newly elected democratic government of Namibia inherited this highly fragmented, stratified, and dualist society of education policies and economy. As a result, the issue of disparity, inequity, and unequal educational opportunities immediately became a central challenge for the new nation.

The imbalance in the level of education among its citizens was one of the most profound features of the country's history (Nekongo-Nielsen, et al., 2008). Since independence, Namibia introduced various education policies to improve the provisioning and delivery of education services to all communities, regardless of their geographical location (Bbuye & Resty, 2013). For instance, before independence, the two colleges of education established to train black teachers (Ongwediva and Khomasdal/Windhoek) were not allowed to offer the Junior

Secondary Training Certificate qualification because the colleges were considered not to have the capacity in terms of adequate staff and facilities. The Colleges were instead authorized to offer a primary level qualification, known as the Education Certificate Primary (ECP), which required only a grade 10 certificate for an entry during apartheid times the proportion of qualified teachers in terms of black to white was in the region of 5% in the black. Administrations to about 70% in the white administration (Angula & Lewis, 2000). Due to the lack of qualified teachers in black ethnic administrations, Primary Education Certificate graduates were deployed to teach at the junior secondary level. At the same time, primary schools were staffed with teachers having lower or no qualifications at all (Amukugo, 2013). The emphasis on ethnicity was opposed by growing nationalist sentiment, and when Namibia became a unitary nation-state, these policies had to go (Amukugo, 2013).

History of Open and Distance Learning in Namibia

Though the history of education in Namibia dates back to the 1800s when missionaries tried to establish educational programs in Namibia but had limited success due to African resistance (Angula & Lewis, 2000). Open and Distance Learning systems were introduced in Namibia during the apartheid era when the South West African education was under the government of South African authorities (Beukes, 2006). During this time of apartheid, distance education was offered by the University of South Africa (UNISA), an internationally recognized pioneer University in distance education. UNISA delivered programs by correspondence with students through mails, telephone, and meetings organized annually in designated areas (Angula & Lewis, 2000).

When Namibia was at the peak of the political struggle around 1981, most Namibians (30%) left the country became refugees, and international assistance came into play to offer distance education to the Namibian adult refugees in Angola and Zambia. The host countries delivered distance education through a program called the Namibian Extension Unit (Rumble & Koul, 2007). The Extension Unit provided training to destitute adults via distance education. This education-focused mainly on primary and junior secondary education with literacy skills development and basic education courses. The original correspondence was through printed texts and audiocassettes (Rumble & Koul, 2007).

Furthermore, under apartheid, senior secondary courses were offered to under-qualified black teachers through the distance education unit of the Department of National Education. However, in 1990 when Namibia became independent, it was reviewed and replaced with more advanced programs. Currently, in the Namibian public education sector, there are four institutions which provide ODL programs: the Centre for External Studies at the University of Namibia (UNAM-CES), the Centre for Open and Lifelong Learning at the Namibia University of Science and Technology (NUTS-COLL), the Namibian College of Open Learning (NAMCOL) and the National Institute for Educational Development (NIED). Over the years, these publicly-funded ODL institutions have been working together with the Ministry of Education to coordinate their activities through the establishment of national trust, known as the Namibian Open Learning Network Trust (NOLNet). Since its establishment in July 2001, NOLNet has been striving to enhance opportunities for supported, independent learning for adults and young people through a framework of collaborative management of open learning centers in terms of a legal agreement between publicly-funded ODL institutions. NOLNet's activities include institutional capacity-building; establishment and expansion of a national network of open learning centers; supporting flexible learning initiatives to supplement existing ODL programs (Nekongo-Nielsen, et al., 2008).

Influence of Edu TV and radio program on the learners' self-directed learning

Self-direction in its broadest meaning, 'self-directed learning' describes, according to Malcolm Knowles (1990) a process: in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes. Knowles (1990) puts forward three immediate reasons for self-directed learning. First, he argues that there is convincing evidence that people who take the initiative in learning (proactive learners) learn more things, and learn better, than do people who sit at the feet of teachers passively waiting to be taught (reactive learners) (Leys, et al., 2005). In general, learners who would apply self-directed learning will have timetables/ schedules to follow the time slots of TV or radio lessons as per broadcast, and they would instead take some notes of main points when actively involved in Edu TV or radio programs.

A second immediate reason is that self-directed learning is more in tune with our natural processes of psychological development. An essential aspect of maturing is developing the

ability to take increasing responsibility for our own lives - to become increasingly self-directed (Beukes, 2006).

A third immediate reason is that many of the new developments in education put a heavy responsibility on the learners to take a good deal of initiative in their learning (Knowles 1990). It is also a general expectation from NAMCOL and parents that the learners make use of flexible learning opportunities such as Edu TV or radio programs provided.

Radio has been used for educational purposes since its beginning in the early 1920s, and the application of radio to the educational problems of the developing nations is not a new concept by any means. Among the uses of educational radio are foreign radio schools, classroom radio uses, "Action Cultural Popular" (ACPO), and correspondence radio courses (Bates, 2013).

Educational radio for classroom presentation has been demonstrated as effective as Television, slide/tape presentations, and other media, and to be cost-effective (Bates, 2010). The significant gains in learning shown in radio lessons might be further enhanced by using materials designed specifically for radio use rather than applications of modified scripts (Akhter, 2011). Television is an audiovisual medium which makes it is enjoyable for all age people. Various Educationists recommend the use of audiovisual media in the learning process for the practical education of learners (Cambre, 2007).

Audio-visual activities were viewed as an essential part of the learning process. Eyes and ears are sense organs that are responsible for crucial functions. "Information that has been received through eyes and ears enables man to have certain thoughts, feelings, and impressions. Hence, it is safe to assume that sight and sound have an important role in learning about the world, as well as perceiving, comprehending, and commenting" (Nyandara, 2012).

TV graphically brings happenings right into living rooms, complete with color, sound, time sequences, and even to some degree, the associated "feelings." So, effective use of ETV can make the learning process easy and exciting for learners. With the help of the ETV program, a learner can learn about a topic within a fixed time. During a program, ETV teacher tries to teach in such a way that he tries to explain the most critical issues within a limited time. It has been observed that ETV Programs are not retrievable for learners, so they attend lectures attentively (Bates, 2010).

Access and Constraints to Educational Technologies used in Learning

Access to educational technologies used in open and distance learning means more freedom of access, and thereby a more comprehensive range of opportunities for learning and qualification to learners (Cross, 2012). Many distance education institutions in developing countries, as well as institutions in developed countries such as the British Open University, use broadcast television and radio extensively to deliver programming to a large number of distant learners (Keegan, 2013). The Open University model has been adopted by many countries in both the developed and developing world (Jarvis, 1987).

Educational radio covers a wide range of educational sectors as applied in Uganda. here the establishment of the Nakaseke community radio in 2003 has served as a forum and knowledge portal for poor rural communities in Nakaseke. Education is one of the station's main program emphasis and recently Nakaseke Community radio, together with primary teachers from government and private schools, started a special program called The Radio Quiz Competition as a challenge to students to perform better and hopefully raise the low literacy levels and poor academic performance of students in the impoverished district.

In Nigeria, due to many social circumstances, radio has remained a natural and effective choice for educating a large section of her population, particularly the nomadic community (Samhar and Lama, 2003). Yet, owing to many problems, the country has not been able to utilize its full potentialities. Major constraints include the problem of airtime, skeletal provision for distance education in the National Policy of Education, lack of funding and government monopoly of broadcasting (Creed & Perraton, 2001).

India has several educational radio projects dated as far back as the 1930s. These projects include the School Broadcast Project of 1937, the Adult Education and Community Development (Radio Forum) project of 1956, the Farm and Home Broadcast Project (1966), the University Broadcast Project (1965) and the language learning program (1979-80) among others (Vyas, et al., 2002). Audio and video recordings, teleconferencing and interactive telecommunication increased rapidly throughout the 1980s (Garrison & Kanuka, 2004).

Most of the educational content in open and distance learning institutions are conveyed to learners through media, e.g., print, television, radio, and so on. But "Television plays a role to

deliver lessons to distance learners who have no regular interaction with a formal teacher in preparation of assessment" (Akhter, 2011:189). The constraints that may be overcome by distance learning include not only geographical distance but also other confining circumstances, such as personal constraints, cultural and social barriers, and lack of educational infrastructure conventional methods (Nyandara, 2012).

In Africa, many experiments with educational television were carried out in countries such as Ivory Coast, Niger and Senegal sponsored by UNESCO, UNDP, The World Bank and countries like France, Britain and the Federal Republic of Germany (Kiwanuka-Tondo, 1990). In most developing countries such as Rwanda and the Central African Republic, it has been observed that access to the internet is costly in case of connection and the hidden cost to end-user in accessing the internet (Leys, Saul, Brown, 2005). Therefore to ensure equity of aces to these programs internet services must be made affordable. Furthermore, teachers' lack of technical and pedagogical skills to use e-technology in instruction even if they have access to the internet is another hindrance. Cultural and religious beliefs may also pose a challenge as they may fear to download inappropriate internet content that may have a negative influence on local culture and ideologies from Western countries (Chapman, 2004).

In developing countries, the challenges of technology instruction include insufficient technical and academic staff with appropriate skills of technology, unsupportive mindset, poor electricity connectivity and reliability as well as poor telecommunication network. Expensive cost of internet access and low internet speed, are further challenges to access to Edu TV and radio programs in developing countries. Lack of content that meets user's expectations especially to some government and local institution websites which demoralize users to search online content, shortage of technological resources and infrastructures and traditional culture of education and learning styles (Nyandara, 2012).

One of the limitations of this type of distribution is that educational programming is confined to broadcast schedules predetermined by the broadcasting station, which may not be times convenient for students taking the course (Bates, 2013). Observed that broadcasts are temporary, cannot be reviewed, are uninterruptable, and are presented at the same pace for all students. A student cannot reflect upon an idea or pursue a line of thought during a fast-paced program, without losing the thread of the program itself (Juma, 2003). A student cannot go

over the same material several times until it is understood. Therefore, it is difficult for the learner to integrate or relate broadcast material to other teachings (Beukes, 2006).

Despite Radio and TV's ability to reach a large section of the student population, open-broadcast Television is a one-way communication medium. It does not provide for interaction (two-way communication) between the student and the teacher and lacks flexibility and ability to respond to student feedback. Since students cannot question the instructor to clarify problems, and since professional broadcast production, it "makes the learner dependent on 'responsible' broadcasting" (Bates, 2013:34), this system of distribution can encourage passive acceptance of the instruction.

Access to household radios and TVs can be limited, and ownership is usually a problem even if radios are readily available. It is still difficult for people in rural areas to purchase radios and to get them repaired while the cost of batteries is inhibitive in places without electricity. Reception can be deficient in some areas, and it is sometimes necessary to broadcast on more than one station to achieve national coverage. Facilities for recording and broadcasting programs are not readily available or of the desired standard, and there is regular competition for studio facilities or broadcast slots. Broadcast schedules (time-slots) tend to be inconvenient. Most broadcasters charge for airtime these days, even though it is for educational purposes. Students have no control over the pace and time of broadcasts, and the lack of visuals can be problematic. There is usually a lack of skilled professionals who can produce high-quality educational radio programs. Essentially educational radio and television is a one-way medium with no or limited interactivity, and favorable policies from regulatory authorities responsible for broadcasting and telecommunications are non-existent in most developing countries (Van Zyl, 2013).

Recommendations to improve access and influence of Edu TV and radio program on the learners' self-directed learning

Since many people cannot afford to leave their work to study, it is essential that distance education and training may be combined with their work. Distance and open learning may also mean a more learner-centered approach, allowing greater flexibility and choice of content as well as more personal organization of the learning program (UNESCO, 2015).

There is a need for broadcast programming to be accompanied by support materials in the form of pre-broadcast notes and follow-up exercises and activities. Research at the British Open University has indicated that "most students find it impossible to take notes while viewing, and those that do are usually very dissatisfied with their notes" (Bates, 2010:13). Access to a videotape of the broadcast, however, alleviates these problems by giving the learner control over the medium with the ability to stop and rewind sections that were not clear. To make the system interactive, open-broadcast distribution requires an added system to provide either audio or audio-video return circuit (Bates, 2010).

Another study on how to improve students' learning indicated, quality of education system basis on the quality of its teaching services. In the distance education system, where teacher-student interaction is weak, the use of communication technologies can improve the gaps. Distance learners cannot attend lectures of teachers in a regular classroom throughout the sessions. Still, the facility of the lecture can be provided to students at home by using satellite broadcasting systems.

By comparing the use of different communication technologies for distance education, the use of Television and Radio is considered most important. Radio and Television both can facilitate distance learners scattered in a wide range of areas (Beukes, 2006).

The use of ETV in distance education is more effective than radio because radio is only an audio media, but Television is an audiovisual medium of communication technology. Keeping in view the uses of ETV programs, various institutions are using Edu programs in offering many courses. Programs for different level courses are broadcasted on Television. It is helping learners not only to provide facilities of lectures by a teacher at home or in the workplace.

Summary

As the background given concerning the student services offered by NAMCOL to distance students in relation to Malcolm Knowles' theory. Access to flexible learning programs can be influenced by various factors, as indicated in the brief overview of the theory of andragogy. The researcher used the theory to provide empirical evidence on access issues to flexible learning to distance learners enrolled. In addition, this chapter also presented the definition of central terms, the background of the education system in Namibia, History of ODL in Namibia.

More so, the influence of Edu TV and radio programs on learners' self-directed learning, access, and constraints on educational technologies used in learning were also presented. Finally, the chapter gave recommendations to improve the access and influence of Edu TV and radio programs on learner's self-directed learning. The next chapter will present the methodology used in the study.

CHAPTER THREE

RESEARCH METHODOLOGY

Introduction

This chapter describes the research methodology applied in the study. These are research design, population, sampling procedures, data collection instruments, data analysis, ethical considerations, and limitations of the study. It also presents a summary of the chapter.

Methodology

The term "methodology" refers to the rules and procedures in which scientific research should be conducted, and it offers a justification of the chosen procedure and a demonstration of its validity and reliability (De Vos, 2011). The research methodology for this thesis involved both qualitative and quantitative approaches. It also employed a combination of data collection methods, needed to answer the different research questions. As indicated by Ritchie (2013), the use of practices associated with a range of philosophical position is preferred by some researchers since each have something to offer. Thus better quality research is produced if a variety of methods is deliberated and best chosen according to the objectives and framework of the research (Agbaje & Alarape, 2006).

Therefore, for this study, different data collection instruments were used, namely, questionnaires and interviews. The first instrument (questionnaire) was chosen for its ability to collect a lot of data at the same time and both qualitative and quantitative data, which can be used to provide the foundation for further analysis. The next instrument (interview) was then selected for its ability to offer elaborated results allowing the participant to give their views on different issues, and thus helping to provide a better understanding of the results provided by the questionnaires. The first two data collection methods, which are the questionnaires and interviews, are different but complementary, while the questionnaire can give short answers to short well-structured questions. The meetings are used to provide explanations to the answers provided by the questionnaires. Therefore interviews were aimed at describing how access to Edu TV and radio programs could boost learner's willingness to do their studies in self-directed ways. Polkinghorne (2005) indicated that qualitative methods and, more especially, interviews

are aimed at describing and elaborating human experiences precisely as it is in people's everyday life.

Document Analysis/review is essential in providing the fundamental data necessary in establishing learners' biographical profiles. Therefore, helping us to understand the patterns and trends of the data collected.

Regional Centres and Study Location

As indicated earlier, NAMCOL has over 100 centers across the nation, and these have been divided into four central educational regions or regional offices, which are 1. Southern Region, 2. Central Region, 3. Northern Region, 4. North-Eastern Region. This set up has been necessitated by the vastness of the country and the sparsely distributed population. The study was conducted at two NAMCOL centers, namely; Eenhana, and Ponhofi, which are located in the northern educational region within the Ohangwena political region (Figure 3.1). These two centers were selected because they fall under the supervision of the researcher, who is one of the area coordinators for the northern educational region. The location of the two centers included in the study is indicated in the image below.

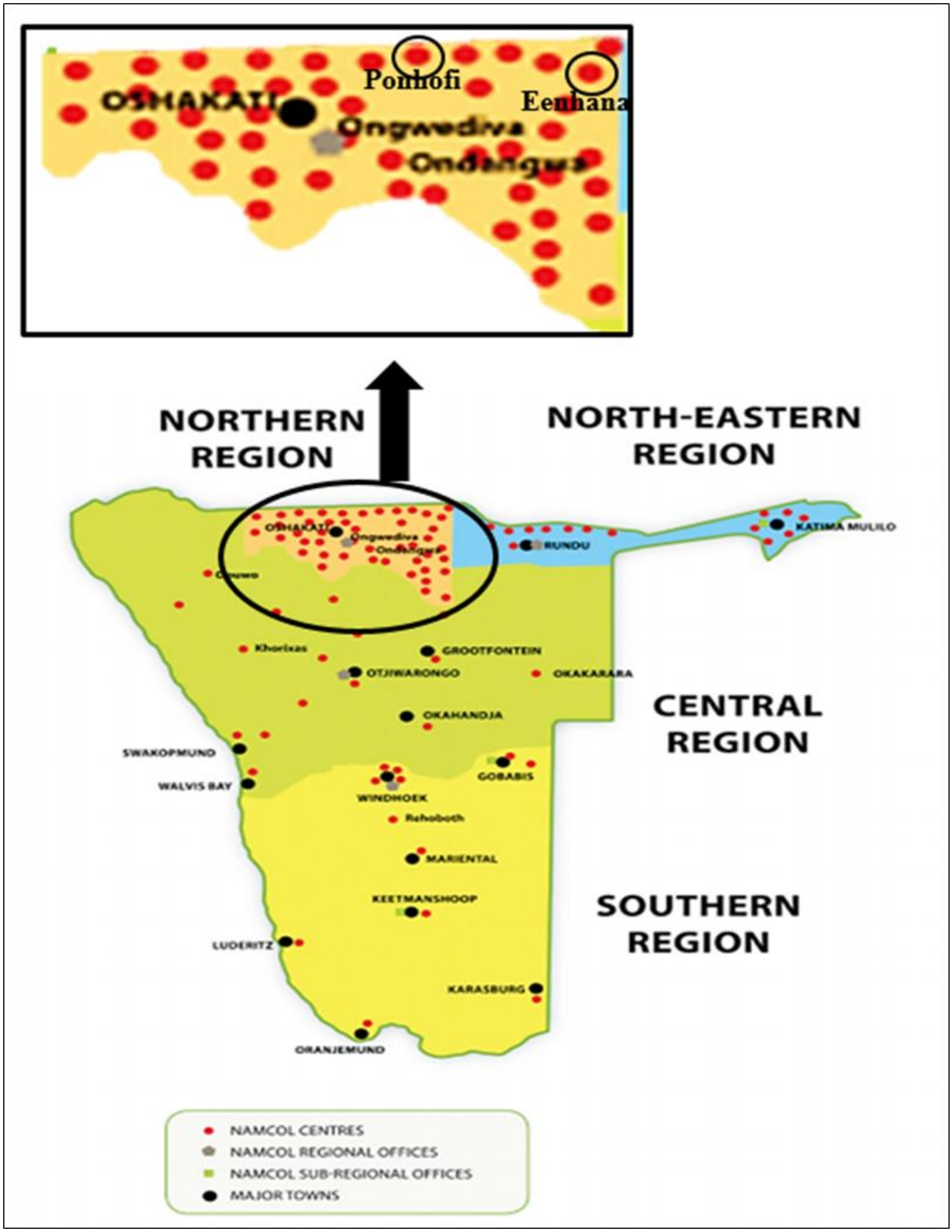

Figure 3. 1 The map of Namibia with the different NAMCOL Regional Offices, Sub-regional Offices, and the distribution of NAMCOL centers across the country and the location of the studied centers modified from (NAMCOL, 2015).

Research design and ethics

The researcher employed both quantitative and qualitative research design to conduct the study. The study explored and investigated whether youth and adult learners enrolled at NAMCOL as an ODL Institution have access to NAMCOL Edu TV and Radio programs, which was designed to facilitate their learning. The thesis further explores the influence of Edu TV and radio programs on the learner's self-directed learning among the grade 12 learners enrolled in distance mode at NAMCOL. The research study also endeavored to identify the challenges faced by students in accessing and utilizing these technologies. The research study focussed on a target population of youth and adult learners enrolled for grade 12 on distance mode in the Ohangwena political region, which falls under the NAMCOL Northern educational region. The actual enrolment of these learners is estimated to be 1150 in various subjects, the majority in English, Biology, and Development Studies. The researcher is an Area Coordinator at Namibian College of Open Learning (NAMCOL). This position afforded the researcher easy access to the enrolment points of the participants in the research study.

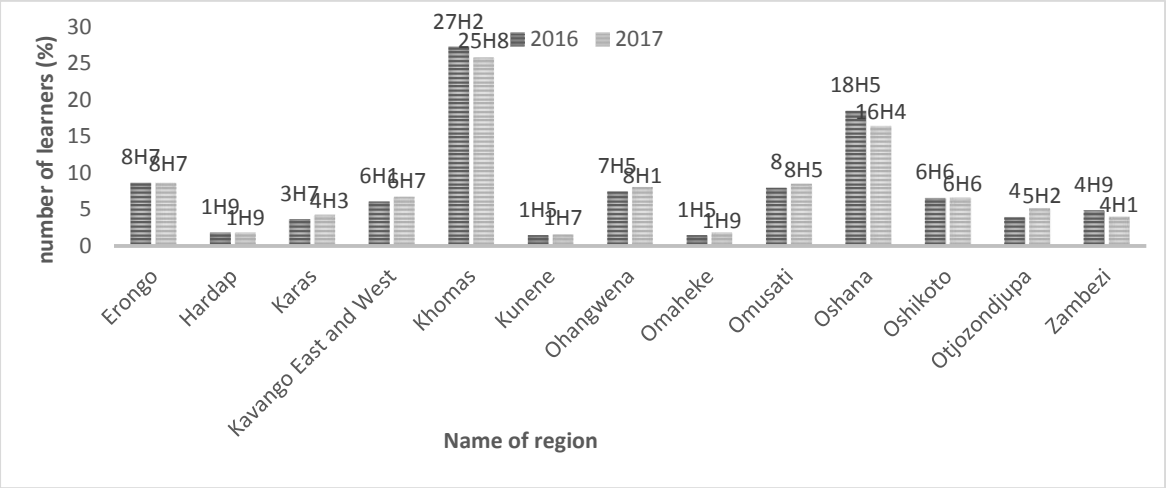

Figure 3. 2 Percentage of learners enrolled with NAMCOL in different political regions of Namibia during 2016 and 2017.

In social research, ethical considerations are a matter of morality, fairness, justice, accountability, integrity, mutual understanding, trust, and mutual respect to humanity between researchers and hence forms a critical aspect. By way of definition, ethics means conforming to the standards of conduct of a given professional group (Hiemstra, 2014). They constitute the parameters and guidelines for distinguishing what is right from wrong, acceptable from

unacceptable and proper from improper hence, and they are the norms or standards for conduct (Agbaje & Alarape, 2006). "Ethics are regarded as crucial to a research study as the researcher negotiates entry to the field of research, coerces the participants to participate in the study, gathers personal and emotional data that reveals the details of the participants' lives and requests that the participants give their time to participate in the study (Cambre, 2007). In a nutshell, they avert the doctoring, fabrication, or falsification of data, thereby allowing for the pursuit of uncontested reality and pure knowledge realizing the ultimate goals of the research. This nuanced background informed the researcher's conduct and manner of executing the data gathering processes (Cambre, 2007).

To ensure an ethical approach towards the research participants for in the project, the researcher obtained permission and consent from the NAMCOL Director, the Regional Manager, Area Coordinator, Heads of Centres, and the learners at NAMCOL. A letter of consent was drafted, which assured confidentiality of the information that was obtained. The students were informed about what and how the information would be used. Although the researcher is a staff member at NAMCOL, it is vital to note that she is in the capacity of a coordinator and does not deal directly with the learners, as in the case of a tutor or head of the center. For this reason, the research project was not expected to be compromised in any form by teacher bias. However, the researcher understands that research is not neutral and free and hence kept an open mind throughout the process. The following documents were vital for this research: Information sheet with the researcher's particulars. A consent form was completed anonymously and assured confidentiality of the information and the questionnaire.

Population

A population refers to a group of people, events, places, or timescales from which the researcher can pick a representative sample of the entire population in the given study (Gay, Mills & Airasian, 2009). A population is usually a large group of events or items that cannot be covered wholly in the study, and the only way is to have representatives. A distinction is made between the population group to which the researcher would ideally generalize the study results, called the target population and the population from which the researcher can realistically select subjects called accessible or available population.

The population for this study was the actual number of grade 12 learners enrolled in the Ohangwena political region under the NAMCOL Northern education region on distance mode. The actual enrolment of these learners is estimated to be 1150 in various subjects, the majority in English, Biology, and Development Studies. The selected centers were located in the Ohangwena political region of Namibia, namely the Eenhana and Ponhofi NAMCOL center. A sample of 225 students was chosen out of the total population of learners at these two centers. Of which 105 were from the Eenhana center, and 120 were from the Ponhofi center.

Profile of the population

The researcher collected data on the current profile of NAMCOL learners, which was supported against data provided by Frohlich (2007) in her book titled "Support Adult Learning and Tutoring" set in Namibia. In general, the profile of the participants could be described as follow: Adults and out-of-school youth, with a wide age range, namely 18-35. Predominantly female, and many are parents, often single parents from both urban and rural, primarily rural areas. Their housing conditions are usually with no modern conveniences and unsuitable for studying (Angula & Lewis, 2000). Most are at the lower end of the socio-economic scale, while few learners are in the middle to the upper socioeconomic range. Many learners are unemployed. However, younger learners have never been employed, and their aim to enroll with NAMCOL is to get a better job (Fröhlich, 2007). While others choose NAMCOL as they have no real choice, some do not qualify for formal education because they're working or overage for formal schooling. Distance education is the preferred mode of education for those living in very remote areas with domestic/family commitments. A high proportion of NAMCOL learners did not complete or did not complete the traditional system of schooling and now want to obtain the points required to be integrated into the formal system or to pursue further studies at post-secondary levels. More female learners than male learners enroll for the secondary education program at NAMCOL (Fröhlich, 2007).

The 2007 Statistical Digest showed that out of the total enrolment of 28,432, about 65% (18,397) were female, and 35% (10,035) were male. In the conventional education system, the percentage of female and male enrolment in the second phase was 49.9% and 51.8%, respectively, in 2006 (Ministry of Education, 2006). The college planned to conduct a study in 2009 to determine the reasons for female learners' high enrolment. The age distribution in the 2007 Digest showed that most learners fall into the age bracket 18–34, which represents 95.6%

of the total learner population (NAMCOL 2007). Most learners in the traditional secondary education phase fall in the age bracket of 15–18. The occupation data shows that less than 1% of learners are employed or have independent sources of income. Enrolments have risen rapidly over the last ten years, though they appeared to level out in 2006. Considering the low socio-economic status of most learners, a scholarship scheme was introduced in 2008 to cater for the needy learners.

All secondary education learners in the country follow the same curriculum accepted by the National Examinations, Assessment, and Certification Board. The National Institute for Educational Development (NIED) is charged with the responsibility of implementing the national curriculum. NAMCOL enjoys statutory representation on various curriculum panels that review curricula, instructional materials, syllabi, and assessment schemes. The same curriculum allows learners to flexibly transfer between NAMCOL and the formal system without being disadvantaged. In 2007, about 12% of learners re-entered the formal system at grade 11 level after successful completion of grade 10 through. NAMCOL offers the final year (grade 10) of the three-year junior secondary phase. For learners to be admitted to grade 10, they should show proof of subject passes at the grade 9 secondary school level of the junior secondary phase or of having previously failed the subjects at the grade 10 level. A maximum of six subjects is required to qualify a learner for the full Junior Secondary Certificate through NAMCOL. Nine subjects are taken through the conventional system, with the best six subjects qualifying learners for admission to the first year (grade 11) of the senior secondary phase. For the senior secondary curriculum, six subjects are a prerequisite either through NAMCOL or in conventional schools. However, in conventional schools, the subjects in this curriculum are taught over two years, while the curriculum for both grades (grades 11 and 12) at NAMCOL is integrated and offered in one academic year. In both grades 10 and 12, NAMCOL learners may take only a maximum of three subjects if they are taking each subject for the first time at that level. Nevertheless, "re-sit" candidates are allowed to take the maximum of six subjects in one academic year.

Learner's academic status is characterized as school drop-out and teenage pregnancies. Their subject knowledge is characterized as either second-time taker (learners who have done but failed the subject before) or may not have prior knowledge on the subject (Frohlich, 2007).

Pilot study

The participants of the pilot study had similar features to the population of the primary research. The piloting of the research tools enabled the researcher to refine the research tools. Procedurally the pilot study revealed that the questionnaire was of sufficient length to engage the respondents during a sit-down session and hence did not need to be taken home. The researcher prepared ten questionnaires and submitted them to ten NAMCOL learners at the Andimba Toivo Ya Toivo SSS center. Initially, the researcher went through the questionnaire with the ten pilot participants to ensure that the questionnaire was clear and understandable. The learners completed the questionnaire through the course of the day, and the researcher collected the questionnaires for analysis. The pilot study aimed to check the strength of the research instruments.

The pilot study was conducted at Andimba Toivo ya Toivo NAMCOL center. It is one of the largest NAMCOL centers in the region, with over 1000 enrolled students. The instruments piloted in the pilot study were the questionnaires and the personal interview. The pilot study guided the researcher to shorten some of the questionnaire questions. The pilot study results showed that the majority of students were aware (8/10) and that about (5/10) made use of the NAMCOL Radio and TV programs. The pilot study further revealed that the learners' enrolled at Andimba Toivo ya Toivo NAMCOL center were mostly female. Therefore the findings from the pilot study ascertained the researcher on the research methods to be used and re-ordering of the questions in the study.

Sample and Sampling Procedure

In this study, a combination of nonprobability sampling methods was employed. These are the convenience sampling method as well as the purposive sampling method. For the convenience sampling method, a sample is adopted for a study just because the sample happens to be available at the appropriate time and place. While the purposive sampling method involves the deliberate selection of a sample based on the objectives of the research.

NAMCOL is an ODL institution, as indicated earlier therefore, learners do not regularly aggregate at the centers. To ensure maximum participation of the learners, the researcher chose a date when learners were expected to attend the first vacation workshop and submit their

assignments at the selected NAMCOL centers. The sample selection was therefore, convenience sampling since only NAMCOL learners who turned up on the chosen dates were given questionnaires to participate in the survey. While purposive sampling was used in the selection of participants for the interview, this is because interview participants were selected based on whether they have access and use the Edu TV/Radio programs.

The study investigated the biographical information of the learners, which included their age, sex, and employment status. The study further evaluated the learners' disposition/access to utilizing the NAMCOL Edu TV/Radio services. In addition, the study looked at the NAMCOL Edu TV/Radio service programs, which are provided in terms of content adherence to the syllabus and schedule adherence as well. The study further looked at the influence that radio and television programs offered to the grade 12 learners by NAMCOL have on learners' self-directed learning. This is because the main aim of coming up with these programs was to improve and support distance grade, 12 learners, learning processes.

Sample size calculation

Sample size calculation plays a significant role in statistical analysis for any scientific research. Sample size calculation refers to the amount of data required to give a representative statistic to allow for a correct estimation of the population parameters in question. According to Kothari (2004), the most compelling question in sampling analysis is What is the optimal size of the sample, i.e. how small or large should the sample be? He further goes on to explain that if the sample size is too small, this may not give reliable or accurate enough answers. On the other hand, if the sample size is too large, then this may result in sustaining unnecessarily higher costs and wastage of resources. Therefore as a general rule, it can be said that the sample must be of optimum size, i.e., it should neither be excessively large nor too small. Technically, the sample size should be large enough to give a confidence interval of the desired width; then, the derived decisions are accurate and reliable. Some of the factors that affect the sample size calculation are the type of data as well as the sample size, the technique used for analysis, the marginal error, the level of significance, and the standard deviation. Initially, the researcher examined the type of data level and the measurement of a specific sample size. There are four types of data levels, which are as follows: 1. nominal data, 2. ordinal data, 3. interval data, and finally, 4 Ratio data.

Sample size determination

In this study, the Yamanes (1967) formula for sample size selection was used. According to Yamane (1967), $n = \frac{N}{1 + \alpha^2 N}$ where n is the sample size, N is the population size, and Alpha is the level of significance for the study. For this study, the data levels used were mainly nominal and ordinal (non-parametric) as the data is classified in groups, for example, sex (male/Female), area of residence (urban/rural), type of media used (radio/TV) and so forth. In this study, the population is 1150; the ideal sample size was determined to be 288 at a 95% confidence level and a confidence interval of 5. In order to obtain the required sample, a total of 300 questionnaires were prepared for the two centers, and each center was supplied with 150 questionnaires. The participants were expected to meet the criterion, such as only learners were enrolled with NAMCOL during the time of data collection were eligible to participate. In order to encourage compliance, learners were given ample time to complete the questionnaire and were required to submit the questionnaire before leaving the center. However, as later reported, only 225 questionnaires were acceptable for the study, and the confidence interval was adjusted to 5.86 accordingly.

Data Collection Instruments

All correspondence with the sample population was done in the English language. The language choice was based on the fact that the sample population was made up of learners in grades 10 and 12. They are sufficiently literate to be able to respond to the questionnaire due to their education level. Even though English is not the mother tongue for the majority of participants in the study, it is the medium of instruction in Namibian school. Also though the medium of instruction for most of the Namibian schools is English, learners still face the challenge of understanding the language in all four language skills (reading, writing, speaking, and listening). This has posed a problem on the learners' completion of the questionnaires and also understanding and responding to the interview questions. To remedy the challenges with the language the researcher went through the questionnaire with the respondents to explain what was required.

The research study made use of questionnaires which had closed ended questions while the interviews had open-ended as well as close-ended questions to collect data from the learners.

Kothari (2014) explains that the primary data are those which are collected for the first time, while the secondary data, on the other hand, are those which have already been collected by someone else and which have already been passed through the statistical process.

The rationale for Questionnaires:

Questionnaires are a principally suitable tool for gaining quantitative data. Still, they can also be used for qualitative data, and this method of data collection is usually referred to as a survey. Using a questionnaire enables you to organize the questions and receive replies without actually having to talk to every respondent. As a method of data collection, the questionnaire is a very flexible tool that has the advantages of having a structured format, is easy and convenient for respondents, and is cheap and quick to administer to a large number of cases covering large geographical areas. There is also no personal influence of the researcher, and embarrassing questions can be asked with a fair chance of getting a true reply. However, they do require a lot of time and skill to design and develop. They need to be short and straightforward to follow, so complex question structures are not possible. Making use of this method of data collection is quite popular, particularly in cases of significant inquiries, and it has been adopted by private individuals, research workers, private and public organizations, and even by government agencies.

Composition of the questionnaire

A comprehensive and thoroughly painstaking exercise was employed to develop a suitable questionnaire using the guidelines specified above and the lessons learned from the pilot study. The questionnaire was then used for the research, and this was to collect data on the use of Edu TV and Radio programs by the NAMCOL learners. Qualitative data such as learner profile and the views of learners on the access and benefits of the Edu TV and Radio Programs were collected. The questionnaire had closed-ended questions (questions that require yes/no answer) and rated responses questions.

Some of the questions and information included in the questionnaires were as follows: the area of residence, student age, student gender, is the students aware of the NAMCOL Edu TV and Radio Programs? Do students watch and listen to the Edu TV, radio program, both or none? If they don't, what challenges prohibit them from watching or listening to the Edu TV and Radio

programs? If students do watch or listen to the Edu TV and Radio program, how effective are the Edu programs? See appendix A for the full questionnaire.

Administering the questionnaire

A total of 300 questionnaires were given to randomly selected students at the Eenhana (150) and Ponhofi (150) NAMCOL centers on different dates. The NAMCOL learners are registered on a distance basis and do not regularly visit the centers. However, the dates selected for the questionnaire survey corresponded with the regular dates for submission and collection of their assignment. The appointment was booked with center heads to administer the questionnaire to the learners on the dates for the first vacation workshop for distance learners and collection and submitting assignments. The researcher traveled to the centers on the dates scheduled for the first vacation workshop and of the collection and submission of the assignment. These dates are clearly stated in the NAMCOL calendar for important dates available to all learners and other stakeholders. The learners were reminded and informed through the Ohangwena local radio station to go to the center to attend the workshop and submit the assignments and that there will be a visitor for them as they would be requested to remain for some extra time on the date for submitting assignments. Learners were invited to meet the researcher in a hall after submitting their assignments and before completing the questionnaire. The researcher introduced herself to the learners and the aim of the visit. The information form and the consent form were distributed and explained to the learners. Questionnaires where voluntarily filled in after a consent form had been filled out and signed at the Centre and returned before the learner left the center for the day. Out of the total of 300 questionnaires, 225 responded, which was a reasonable rate of return, and this is how they are represented.

The merits claimed on behalf of this method are as follows:

- There is a low cost even when the universe is vast and is widely spread geographically.
- It is free from the bias of the interviewer; answers are in respondents' own words.
- Respondents have adequate time to give well thought out answers.
- Respondents, who are not easily approachable, can also be reached conveniently.
- Large samples can be made use of, and thus the results can be made more dependable and reliable.

The main demerits of this system include the following:

- Low rate of return of the duly filled in questionnaires; bias due to no-response is often indeterminate.
- It can only be used when respondents are educated and cooperating.
- The control over the questionnaire may be lost once it is sent.
- There is inbuilt inflexibility because of the difficulty of amending the approach once the questionnaires have been despatched.
- There is also the possibility of ambiguous replies or omission of answers altogether to specific questions; interpretation of omissions is difficult.
- It is difficult to know whether willing respondents are truly representative.
- This method is likely to be the slowest of all. (Maxwell, 2008).

Main aspects of a questionnaire:

Quite often, the questionnaire is considered as the heart of a survey operation. Hence it should be very carefully constructed. If it is not correctly set up, then the survey is bound to fail. The researcher noted the following concerning these three main aspects of a questionnaire:

1. General form: So far as the general form of a questionnaire is concerned, it can either be structured or unstructured questionnaire. Structured questionnaires are those questionnaires in which there are specific, concrete, and pre-determined questions. The questions are presented with exactly the same wording and in the same order to all respondents.

2. Question sequence: To make the questionnaire effective and to ensure quality to the replies received, a researcher should pay attention to the question-sequence in preparing the questionnaire. A proper sequence of questions reduces considerably the chances of specific questions being misunderstood. The question-sequence must be clear and smoothly-moving, meaning thereby that the relation of one question to another should be readily apparent to the respondent, with questions that are easiest to answer being put in the beginning. The first few questions are particularly important because they are likely to influence the attitude of the respondent and in seeking his desired cooperation. The opening questions should be such as to arouse human interest. The following type of questions should generally be avoided as opening questions in a questionnaire: (Polkinghorne, 2005).

- questions that put too great a strain on the memory or intellect of the respondent;
- questions of a personal character;
- questions related to personal wealth

Following the opening questions, the questionnaire should have questions that are vital to the research problem, and a connecting thread should run through successive questions. Ideally, the question sequence should conform to the respondent's way of thinking. Knowing what information is desired, the researcher can rearrange the order of the questions (this is possible in case of the unstructured questionnaire) to fit the discussion in each particular instance. But in a structured questionnaire, the best that can be done is to determine the question-sequence with the help of a Pilot Survey, which is likely to produce good rapport with most respondents. Relatively tricky questions must be relegated towards the end so that even if the respondent decides not to answer such questions, essential information would have already been obtained. Thus, question-sequence should usually go from the general to the more specific, and the researcher must always remember that the answer to a given question is a function not only of the question itself but of all previous questions as well. For instance, if one question deals with the price usually paid for coffee and the next with the reason for preferring that particular brand, the answer to this latter question may be mainly couched in terms of price differences (Fouché & Delport, 2005).

4. **Question formulation and wording:** Concerning this aspect of the questionnaire, the researcher should note that each question must be evident for any sort of misunderstanding can do irreparable harm to a survey. Questions should also be impartial in order not to give a biased picture of the actual state of affairs. Questions should be constructed with a view to their forming a logical part of a well thought out tabulation plan. In general, all questions should meet the following standards—(a) should be easily understood; (b) should be simple i.e., should convey only one thought at a time; (c) should be concrete and should conform as much as possible to the respondent's way of thinking (Fouché & Delport, 2005).

Essentials of a good questionnaire

To be successful, the questionnaire should be comparatively short and straightforward i.e., the size of the questionnaire should be kept to the minimum. Questions should proceed in a logical

sequence, moving from easy to more difficult questions. Personal and intimate questions should be left to the end. Technical terms and vague expressions capable of different interpretations should be avoided in a questionnaire. Questions may be dichotomous (yes or no answers), multiple choice (alternative answers listed), or open-ended. The latter type of questions is often difficult to analyze and hence should be avoided in a questionnaire to the extent possible. There should be some control questions in the questionnaire, which indicate the reliability of the respondent.

The rationale for the use of Interviews

The interview method of collecting data involves the presentation of oral-verbal stimuli and reply in terms of oral-verbal responses. This method can be used through personal interviews and, if possible, through telephone interviews with telephone interviews involving the collection of information by contacting respondents via telephone itself. The telephonic interview method is however not widely used but has the following merits (Fouché & Delport, 2005)

1. It is more flexible in comparison to the mailing method.

2. It is faster than other methods i.e., a quick way of obtaining information.

3. It is cheaper than the personal interviewing method; here, the cost per response is relatively low.

4. A recall is easy; call-backs are economical and straightforward.

5. There is a higher rate of response than what we have in the mailing method; the non-response is generally very low.

6. Replies can be recorded without causing embarrassment to respondents.

7. The interviewer can explain requirements more efficiently.

8. At times, access can be gained to respondents who otherwise cannot be contacted for one reason or the other.

9. No field staff is required.

10. A representative and broader distribution of the sample is possible.

But this system of collecting information is not free from challenges, some of which may be highlighted as follows:

a. Surveys are restricted to respondents who have telephone facilities.
b. Extensive geographical coverage may get limited by cost considerations.
c. It is not suitable for intensive surveys, where comprehensive answers are required for various questions.
d. The possibility of the bias of the interviewer is relatively more.
e. Questions have to be short and to the point; probes are difficult to handle.

How interviews were conducted in this study

Interviews were conducted using a telephonic semi-structured approach. The telephone interviews enabled the researcher to gather information rapidly, and like personal interviews, they allow for some personal contact between the interviewer and the respondent. It also helped to overcome the distance to the learners and allowed the researcher to access at convenient times based on students' other commitments to school, family and work.

A total of 12 learners who indicated in the questionnaire that they had access to and did listen and watch radio and TV programs respectively where selected randomly from the total number of the study sample, and they were telephonically interviewed. Four of the learners talked indicated that they watch TV only, three reported that they only listen to the radio. In contrast, five of the interviewees noted that they use both TV and radio.

Each learner was interviewed separately over the telephone and was asked the following questions:

1. Are the radio/ TV lessons informative?
2. Do the lessons help you to assume responsibility for learning on your own, and how?
3. Do the lessons offer self-assessment opportunities e.g. homework, assignments, or quizzes?

4. What are the most recommendable ways of acquiring information from the lessons?
5. What do you use information gathered from the lessons for?

The first three questions were aimed to get information to answer the main question 1 under objective 2. While question 4-5 were intended to provide information to answer the "main question 2" under "objective 2".

No time limitation was placed on the duration of the interview. This was done to make the learners comfortable to give honest responses or views and not to feel forced or rushed into providing the information required. Furthermore, learners were encouraged to engage with the interviewee and ask any topic-related questions that they may wish to.

Analysis of the Findings

The researcher made use of two data collection tools, namely the questionnaires and interviews, to address the question of access to flexible learning programs as well as the influence of these flexible learning programs on self-directed learning. The nature of the interview questions were open-ended and closed-ended, while the questionnaire questions were closed-ended which generated both quantitative and qualitative data.

The qualitative approach has an inductive orientation to data analysis. The analysis begins from specifics and builds towards general patterns, and the researcher looks for relationships among the different dimensions in the data (Patton, 2002). In this study, the researcher used an inductive approach to data analysis to look for patterns and themes and relationships among different dimensions. Data analysis was an ongoing process from the beginning of data collection. This enabled the researcher to have a deeper understanding of the problem being investigated. Upon finishing, items were selected from the interview schedule that referred to issues on learners' access to flexible learning programs. The focus was on identifying which media was most accessible and the challenges faced in accessing the media. This involves interpretation and modeling into findings which provide valuable evidence, suggesting conclusions, and supporting decision-making. The researcher used Microsoft excel to analyze the quantitative data as the software was readily available as well as sufficient for the task of analyzing the data. Data capturing was executed on excel as well as the graphs and charts were generated using excel. The questionnaire data is presented in graphs and tables in the next

chapter and is discussed critically and presented in Chapter 4 in a form that allowed the researcher to answer the research questions of the study. Questions from the questionnaire provided a series and ways of coding to start clustering and organizing data under those questions.

Limitations of the study

NAMCOL enrolled 27 456 NSSCO/H learners for the Secondary Education Programme (SEP) and has over 100 enrolment points across the country (NAMCOL, 2016). Though the demographic of the NAMCOL population is similar in terms of age and educational background or experience, the geographic location, as well as the economic status of these locations, play a significant role in determining the outcomes of the study. Having selected only two centers out of 100 centers for the research might have posed a limitation in the understanding of the findings since the sampled centers might not give a good representation of the whole country. Therefore, the probability of being able to generalize the results of the study the entire country would be limited. Furthermore, the focus of this study on centers from the same political region (Ohangwena region) posed limitations on the full understanding of the factors affecting learners' access to NAMCOL Edu TV/Radio programs across the country. This is because people from different parts of the country live under different conditions, with different cultural values, the socio-economic situation with separate access to essential services; thus, would be exposed to various challenges. Therefore including more centers from different political regions would have provided a better understanding of the trends observed and make the study a better representative of the NAMCOL Edu TV and Radio program of the whole country.

Apart from the center selection limitation. Previous NAMCOL documents such as annual enrolment statistics, location of centers in the different towns, primary demographic data of the enrolled learners, serve as a source of the foundation of understanding of the NAMCOL structure, which can be helpful in the creating of the learners' profiles. This can contribute to a better understanding of the findings. Although there were documents available, they were in a limited number and outdates, thus proving not to be very useful.

Another limitation of this study was the language barrier. Even though the medium of instruction for most of the Namibian schools is English. Learners still face the challenge of

understanding the language in all four language skills (reading, writing, speaking, and listening). This has posed a problem on the learners' completion of the questionnaires and also understanding and responding to the interview questions.

Summary

This chapter has described the research design used in this study. The purposive criterion sampling procedure used for the selection of centers, and participants were discussed in this chapter. The research instruments used were also outlined and described. The sample in this study consisted of a total of 225 learners, 120 from Eenhana, and 105 Ponhofi NAMCOL centers in the Ohangwena Political region. Furthermore, a pilot study was conducted with similar participants to check the validity and reliability of the research instruments. Based on the results of the pilot study, double-barrelled questions were reworded, and question order was also changed. The next chapter presents the findings from the two centers studied.

CHAPTER FOUR

PRESENTATION OF FINDINGS AND DISCUSSION

Introduction

In this chapter, the findings of this study will be presented and analyzed in line with the research questions that guided the research and the literature reviewed. The results are presented in this order:

First, I submit the general information about the participants, then biographical information so that the reader is informed about the profile of the participants. Secondly, I present the themes and sub-themes as collated and analyzed from the questionnaire. Thirdly, the interview results follow.

Presentation of findings

General information about the participants

This section of the study responds to the NAMCOL learners, as collected through the questionnaire. An understanding of the general information of the participants is essential as it may influence their response to the significant research objectives and critical questions.

Out of the total of 300 questionnaires, 225 responded, this is a relatively high response rate, and this is how they are represented. Out of the 225 respondents, 54 were male, while 171 were female. This meant a 24% male representation, with the remaining 76% being females. Within the two NAMCOL centers, 50.7% percent of the learners live in a rural area while the rest live in urban areas 49.3%, so roughly equally divided between rural and urban. The majority of learners (89%) are in the 18-25 years age group while the rest are in the 26-35 age groups. The study also revealed that 15% of the learners are registered for just one subject while 51% of the leaners are registered for two subjects, those registered for three subjects make up 34%, and only 0.5% of these learners are registered for more than three subjects. The data also revealed that a majority of NAMCOL learners are unemployed, showing on average over 94% unemployment among these learners. This data is illustrated in the graph below:

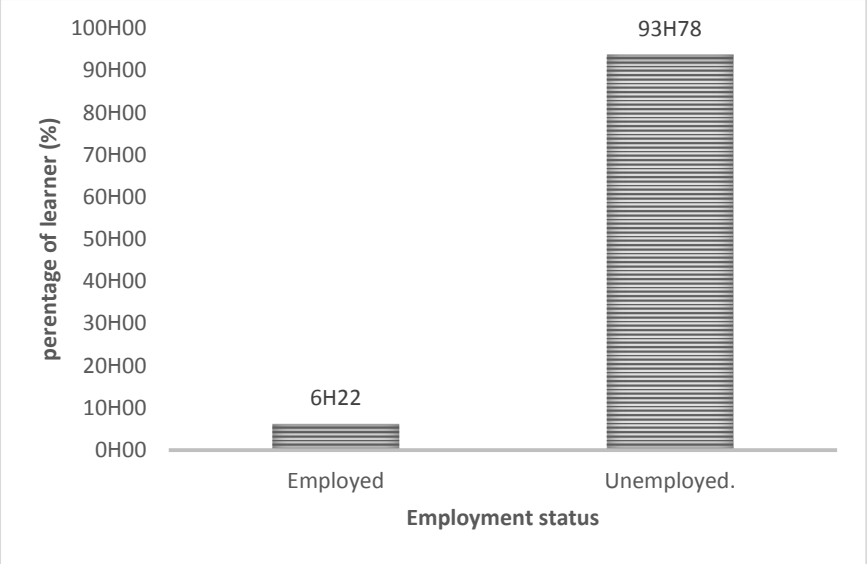

Figure 4. 1The employment status of NAMCOL learners at Eenhana and Ponhofi centers.

This distribution of almost 94% unemployment though very grim is to be expected as most of the NAMCOL learners are those who have not been able to attain the necessary grades to continue with formal education, as is the case with the Grade 10's (JSC). In contrast, the grade 12's (NSSC) was unable to obtain the necessary grades to either get employment or to gain entry into the institutions of higher learning. The learners' residency is represented in the graph below, where it can be seen that the Eenhana center has more learners that live in an urban area as compared to Ponhofi.

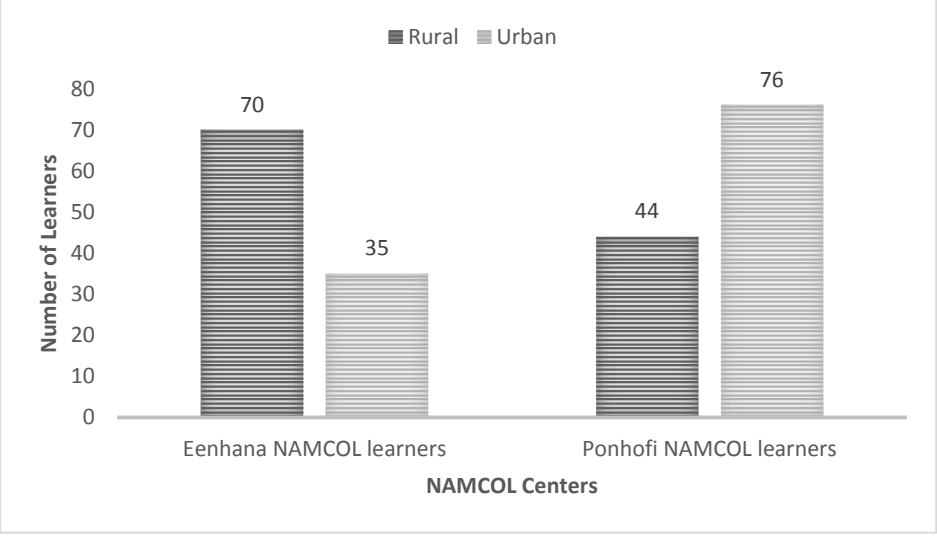

Figure 4. 2 Residency of NAMCOL learners enrolled at Eenhana and Ponhofi centers

Table 4. 1 The biographical information of learners at Ponhofi and Eenhana NAMCOL centers.

		Eenhana	Ponhofi
Gender	Male	27	27
	Female	78	93
Area of residence	Urban	34	76
	Rural	71	44
Age groups	18-25	91	110
	26-35	14	10
Number of subjects per learner	1	20	14
	2	51	63
	3	33	43
	Above 3	1	
Employment status	Employed	6	8
	Unemployed	99	112

Gender: The average distribution of males and females at the two centers chosen was 24% (male) vs. 76% (Female). **Area of residence**: these figures show that the two centers are contrasted in terms of the residency with Ponhofi with more learners living in urban areas than in rural areas while Eenhana has more learners living in rural areas than in urban areas. **Age group:** Most of the learners are in the 18-25 years age groups for both the centers. **The number of subjects:** Most leaners register for either two or three subjects. **Employment status**: over 90% of NAMCOL learners are unemployed.

Table 4. 2 Biographical information of Participants conducted for interviews

	Age	Gender	Employment status	Centers	Area of residence
Participant 1	35	F	Not Employed	Ponhofi	Rural
Participant 2	25	F	Not Employed	Eenhana	Rural
Participant 3	31	F	Not Employed	Ponhofi	Urban
Participant 4	22	M	Not Employed	Ponhofi	Urban
Participant 5	24	F	Not Employed	Eenhana	Rural
Participant 6	25	F	Employed	Ponhofi	Rural
Participant 7	26	M	Not Employed	Eenhana	Urban
Participant 8	28	M	Employed	Eenhana	Urban
Participant 9	24	F	Not Employed	Ponhofi	Rural
Participant 10	21	F	Not Employed	Ponhofi	Rural
Participant 11	23	M	Not Employed	Eenhana	Urban
Participant 12	22	F	Employed	Ponhofi	Rural

Themes and sub-themes

The data was grouped into codes and themes which were aligned to answer the research questions of the study. In this section, I present the questionnaire results first, then quotes from the interviews and questionnaires and relate to the literature reviewed.

Table 4. 3 Themes and subthemes of the study

Theme	Sub-themes
1. Accessible Programmes to learners	1.1 Awareness of Edu TV and Radio Programmes
	1.2 Have access to Radio
	1.3 Have access to TV
	1.4 Have access to Both Radio and TV
	1.5 Have no access to Radio or TV
2. Influence of Edu TV and radio	2.1 Lesson are informative and encourage learners to study on their own
	2.2 Improves the learner's ability skills to solve problems.

	2.3 Edu TV and radio makes learning interesting
	2.4 Learners can learn while in the comfort of their homes.
	2.5 It brings reality to the classroom through simulations.
3. Challenges to Edu TV and radio Programmes	3.1 Lack of Electricity
	3.2 Lack of Television or Radio set/ restricted access
	3.3 Lack of NBC digital decoder
	3.4 Lack of Broadcast Schedule
	3.5 Language Barriers
4. Recommendations	4.1 Provide fliers on Edu Programmes at registration
	4.2 Upload Video/Audio Edu lessons on NAMCOL FB and You tube
	4.3 Improve Broadcast Schedules
	4.4 Repeat the weekly broadcast during weekends

Theme 1: Accessible Programmes to learners

The participants in the study indicated that NAMCOL programs that are being offered are quite diverse. The results revealed that the majority of learners from Eenhana had access to the radio with forty (40) learners surveyed, indicating that they make exclusive use of radio compared to Ponhofi with only 18 learners. Thirty-three (33) of the learners' from Ponhofi showed that they only had access to TV compared to nineteen (19) from Eenhana. A total number of fifty-four (54) of the learners surveyed had access to both media (TV and radio).

The following statements from interviews support this claim:

"We have several programs like Edu TV and Radio programs/lessons which we are accessible to" (S. Martin. Telephone interview. May 08, 2017).

"I watch Edu TV from home."

"I use the radio to access the NAMCOL Edu programs."

The findings above support the earlier results of Bates (2010), who indicated that many distance education institutions in developing countries, as well as institutions in developed countries such as the British Open University, use broadcast television and radio extensively to deliver programming to a large number of distant learners.

Access to educational technologies used in learning open and distance learning means more freedom of access, and thereby a more extensive range of opportunities for education and qualification to learners (Cross, 2012).

Among all the available media, Television and Radio have emerged as the most popular methods of information transmission employed by distance education institutions across the world. Television and Radio have long been revered for their ability to engage the learner's imagination (Bates, 2010).

In recent years, however, advances in technology have produced further mediums for engaging learners such as the internet as well as social media. As a result, a variety of audiovisual media have become part of the study package for distance and open learning institutions; these include radio, television, video compact disks, audio compact disks, the internet as well as social media (Garrison & Kanuka, 2004).

Selection of the appropriate media for a learning package is a complex decision which is influenced by a variety of factors such as the actual learning objectives of the different subjects, learners background, and experience, the characteristics of the target group as well as the several practical constraints of availability of infrastructure and financial resources (Cambre, 2007).

Subtheme 1.1 Awareness of Edu TV and Radio Programs

The participants in the study indicated that NAMCOL programs that are being offered are quite diverse. Question seven of the questionnaire enquired of the participants if they were aware of the programs and how they came to know of the programs. The study revealed that 169 learners in both centers indicated that they are aware of the programs, while 56 learners were unaware of the programs Edu TV and Radio. The learners that knew about the Edu TV/Radio program services, 88% of them make use of one or both of the programs. The results reveal that most of the learners heard about the Edu TV/Radio services from the media (75%), while only 13%

have heard about the assistance from the NAMCOL center itself. Some comments from the participants were as follows:

“I am aware of the programs because I got the schedule from the center.”

“I got the schedule from the new era newspaper.”

“The tutor gave me the schedule.”

Another important statistic that came out, especially from the interview was that of the frequency of use of the Edu TV/Radio. This parameter indicated as to how often the learners make use of the Edu TV/Radio services. The results of this statistic showed that 59 % of NAMCOL learners often used the Edu TV/Radio programs at both centers.

Some indicated this as:

> “I get lessons from Edu TV and radio programs.”
>
> “I often use the lessons to assist complete my assignments.”
>
> “The Edu programs are good for me.”

Subtheme 1.2 Have access to Radio

The finding of the study revealed that the majority of learners had access to the radio, with 58 learners surveyed indicating that they make exclusive use of radio. The breakdown of this figure is as follows: Forty (40) learners at Eenhana had access to the radio while only eighteen (18) at Ponhofi had access to radio. : These figures show that the two centers are contrasted in terms of the residency with Ponhofi with more learners living in urban areas than in rural areas. In comparison, Eenhana has more learners living in rural areas than in urban areas.

The finding is correlating with the results of the study by Keulder (2006) that has found, among other things, that radio is the media type that most Namibians have access to and that "two-in-every-three respondents" listen to radio every day with the average student spending between five to seven hours listening to radio each day (Keulder 2006). Below are some of the comments made by the learners:

"I use the radio to access the NAMCOL Edu programs."

"I have a radio at home but not TV, I use it to access NAMCOL lessons."

The findings are also supported by a review of Beukes (2006) that Radio is being used in a variety of contexts to serve a wide range of educational purposes, including the provision of support to ODL students. Educational radio, in particular, enables governments and institutions to improve access to educational opportunities as well as the quality of such provision (Beukes, 2006).

Subtheme 1.3 Have Access to TV

The finding of the study is that 52 of the participants indicated that they only had access to TV as the initial inquiry to the participants for the research to find out if the learners have access to a TV or a Radio and benefiting to the multimedia opportunities provided by NAMOL. In terms of the two centers, thirty-three (33) of the learners' from Ponhofi indicated that they only had access to TV compared to nineteen (19) from Eenhana.

Below are some of the sentiments by the participants

"I have a TV at home."

"NAMCOL lessons on TV are useful."

Television plays a role in delivering lessons to distance learners who have no regular interaction with a formal teacher in preparation of assessment" (Chute, Thompson, and Hancock, 2009). In 2009 NAMCOL embarked on a multimedia strategy of 2009 to 2011 intending to develop a greater volume of multimedia of the highest quality. As an ODL institution, NAMCOL makes use of all available media to reach the growing population of distance learners (Namibian College of Open Learning, 2014-2015).

Subtheme 1.4 Have access to Both TV and radio

The finding of the study revealed that 54 of the participants had access to both media in both centers. Thirty-seven (37) participants at Ponhofi indicated they have access to both TV and radio while seventeen (17) participants at Eenhana have access to these mediums. These figures

show that the two centers are contrasted in terms of the residency, Ponhofi, with more learners living in urban areas than in rural areas while Eenhana has more learners living in rural areas than in urban areas.

"It is good to use TV and radio to get lessons."

"I use either TV or radio to access the programs if I miss out on one."

"At home, I have a radio and TV and at home."

Radio and television both can facilitate the distance learners scattered over a wide-ranging area (Beukes, 2006). The findings of the study concur with the above statements from Beukes (2006) that TV and radio are considered necessary to facilitate learning to a wide range of learners. The study revealed that the majority of NAMCOL learners (77%) have relatively easy access to the radio or TV, which they can access from home. There is however, 23% of NAMCOL learners who do not have ready access to the media at home and have to make use of it either at a family/friend or at the NAMCOL center or at the place of employment for the few that are employed.

Subtheme 1.5 Have access to none

The initial inquiry to the participants for the research was to find out if the learners have access to a TV or a Radio. The findings indicated a relatively small number of participants, five (5) learners have no access to either of the media.

Two of the five learners without access to the services commented as follows:

"I have no TV or radio at home."

"My grandparents are strict with their radio."

The findings above concur with the results from Beukes (2006) that the most practical constraint to these mediums for learning is obviously the unavailability of a radio or Television set for the students. Access to household radios and TVs can be limited, and ownership is usually a problem even if radios are readily available. It is still difficult for some people in rural

areas to purchase radios or television set and to get them repaired while the cost of batteries is inhibitive in places without electricity (Beukes, 2006)

Theme 2. Influence of Edu TV and radio on learners self-directed learning from the interviews

All participants indicated that the lessons were informative. Furthermore, it helps learners to assume responsibility for their learning. This suggests that the given programs have a positive effect on SDL. Four of the participants interviewed indicated that they watch TV only, three indicated that they only listen to the radio. In contrast, 5 of the interviewees noted that they use both TV and radio.

They expressed the comments below:

> "I follow the lessons very well and learn the topics."
>
> "I take notes during the lessons."
>
> "I do the self-help activities at the end of the lessons."

Self-direction in its broadest meaning, 'self-directed learning' describes, according to Malcolm Knowles (1990) a process: in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes.

Subtheme 2.1 Lessons are informative and encourage learners to study on their own

All the twelve learners interviewed found the radio and TV lessons informative and further stressed that the lessons encourage them to learn more on their own. Nine (9) of the participants use the information from the experiences as the basis to help them research and read more on the topics to find adequate information necessary for the completion of assignments and preparation for the examination. The comments by participants of what they have said.

"The activities are good and encourage me to learn more."

“I use the lessons as revision for my studies.”

Research materials used to advance their knowledge includes textbooks, NAMCOL booklets/reading materials. Together with the other three learners, they also indicated that they also use the lessons as a platform providing clarification on the things they have read before.

Subtheme 2.2 improves the learners’ ability skills to solve problems.

Participants indicated that the lessons help them to understand how to solve specific problems.

“Lessons help me to do my assignments.”

Two learners who watch or listen to the radio prefer to record the information in different ways other than just listening/watching. The learners who watch TV prefer recording the programs, while those that listen to the radio indicated that they use paper and pencil method to write down the main point and summarise the information.

Apart from using the information they gather from the programs as reference for further research, they also find the information useful for direct use in answering assignment questions and in the examination. Ten indicated that they sometimes share the information they noted from the programs with their peers, helping them complete assessment materials.

Learners interviewed further indicated that the programs prompt them to do additional research on the topic and gain more knowledge and encourage them to follow the program schedule. This is another indicator that the plans are working in promoting self-directed learning in learners.

Subtheme 2.3 Edu TV and radio programs make learning interesting

All the participants interviewed indicated that they found the radio and TV lessons informative and entertaining.

> “The Edu TV and Radio programs are instrumental supportive and interesting.”
>
> “The lessons sometimes explain difficult parts.”
>
> “I like listening to and watching Edu programs.”

The citation above is supported by Bates' (2013) findings that TV graphically brings happenings right into living rooms, complete with color, sound, time sequences, and even to some degree, the associated "feelings. So, Effective use of ETV can make the learning process easy & enjoyable for learners (Bates, 2013)

Subtheme 2.4 Learners can learn while in the comfort of their homes.

The study revealed that the majority of NAMCOL learners (77%) have relatively easy access to the radio or TV, which they can access from home. Thirty-three (33) of the learners' from Ponhofi indicated that they only had access to TV compared to nineteen (19) from Eenhana. Forty (40) learners at Eenhana had access to the radio while only eighteen (18) at Ponhofi had access to radio. Below is what they have to say:

"I am distance and study while I am at home."

"I go to my uncle's home to access Edu TV lessons."

Since many people cannot afford to leave their work to study, it is essential that distance education and training may be combined with work. Distance learners cannot attend lectures of teachers in a regular classroom throughout the sessions. Still, the facility of lectures can be provided to students at home by using satellite, broadcasting systems, etc.

Subtheme 2.5 It brings reality into the classroom through simulations.

Television is used in sciences, technical and vocational subjects. The demonstration through television helps to substitute the laboratory experiments. In social science and language, television is used to show a real-life situation. TV also helps to understand information, which is too complicated for the written or spoken explanation (Cross, 2012). The table on the following page gives a summary of the questions and answers of the personal interviews.

Table 4.4 Summary of the questions and answers of the personal interviews.

QUESTIONS		ANSWERS/RESPONDS
i)	Are the TV and radio programs informative?	Yes:12 No: 0
ii)	Do programs help learners to assume responsibility for their learning?	Yes: 12 No: 0
	How?	• It prompts them to do additional research on the topic to gain more knowledge. • Is to prepare and follow the broadcast schedule.
iii)	What are the most recommended ways by the learners to acquire information from the programs?	• The pen and pencil method for note-taking (for radio programs followers). • Recording the programs broadcasted (for TV programs followers)
iv)	Ways in which the information acquired from the programs are used by the learners.	• They are used as a basis for research on the main points on the topic. • They are used for assignment completion. • They are used for examination preparation. • Used to share it with other peers during discussions and for the completion of assessment materials.

Theme 3. Challenges as to Edu TV and radio Programmes

Youth and adult learners, the participants in the study, already face a vast array of challenges in accessing education because historically distance and adult learners have been neglected. The typical challenges of reduced contact time with the tutors as compared to the face to face setup for these learners are further compounded by several challenges, as shown by the study. The challenges as to technology instruction include insufficient technical and academic staff with appropriate skills of technology, unsupportive mindset, electricity connectivity (Nyandara, 2012).

Subtheme 3.1 Lack of Electricity

The study found out that the most significant challenge faced by the learners is the lack of electricity because over 88 participants indicating that they meet this challenge.

“I stay in a rural area, no have electricity.”

“My grandparents are strict with their radio.”

Their sentiments are supported by the findings from Van Zyl's (2013) study that confirms that access to household radios and TVs can be limited, and ownership is usually a problem even if communications are readily available. It is still difficult for people in rural areas to purchase radios and to get them repaired while the cost of batteries is inhibitive in places without electricity. Reception can be weak in some areas (Van Zyl, 2013).

Subtheme 3.2 Lack of Television or Radio Set

The two centers are located in towns (Eenhana & Ponhofi) established after Namibia’s independence in 1990 from a village set up to a city set up. However, the study showed that the two centers have a high number of learners from rural areas. This is because even though the centers are located in the two towns, most of the learners live in the nearby villages. Thirty-seven (37) participants from Eenhana have indicated the lack of a radio set, while twenty (20) participants from Ponhofi stated the absence of a radio set. Thirty-nine participants from Eenhana noted the lack of TV sets compared to seventeen (17) participants from Ponhofi lack

television set. The findings are supported by the citation from the learner's comments, as depicted below.

"Provide NAMCOL centers with television sets because I do not have a TV at home."

"I have no TV set at home for me to use these initiatives."

The findings further indicated that Eenhana has seventy participants (70) from rural setup and thirty participants (30) from urban setup. In comparison, Ponhofi has forty-four (44) participants from rural setup and seventy-six (76) participants from urban setup. Lack of radio set or TV set will make it difficult to follow the broadcasts, and a decrease in accessing household radios and TVs can be limited. Ownership is usually a problem even if radios are readily available.

Subtheme 3.3 Lack of Namibia Broadcast Corporation (NBC) digital decoder

The other major challenge faced by the learners was the lack of NBC digital decoder, TV, and radio signals at their home. Learners may have access to television and have good TV signal reception. Still, if the TV set is not connected to NBC, digital decoder learners will not be able to access the Edu TV lessons being broadcast. The study has found out that fifty-eight (58) participants lack the NBC digital decoder.

"The TV is not connected to NBC digital decoder because there is DSTV decoder."

"There is a TV but No NBC digital decoder at home."

One of the factors that contribute to the lack of NBC digital decoders at home is the socio-economic status of the learners. The digital decoder migration project rolled out by the ministry of information communication and technology required households to purchase the NBC digital decoder for a price of N$ 200.00. This additional cost may have been a barrier to some households and as a result, those learners would not have access to the NAMCOL Edu TV lessons.

Subtheme 3.4 Lack of Broadcast Schedule

In light of the results of the study, it was also found that forty-eight (48) participants don't get the broadcasts schedule of Edu radio and TV programs. Because of this, they miss the Edu programs. This means that learners may have a radio or TV (access to the technology) but still cannot access the learning programs this may demotivate to apply self-direction in their learning.

"I did not receive the schedule.'

"No schedule of the Edu programs."

Subtheme 3.5 Language Barriers

Approximately half of the participants interviewed and who view the program indicated that they could not note down the essential features of the program because of slow writing speed and non-availability of recording facilities. These findings are confirmed by the sentiments of some of the 23 participants who indicated that the English language is a barrier to learning.

"The radio lesson presenter is too fast, and so learners find it difficult to follow the lesson."

"Edu Radio programs are too short, and they must increase the length of the lessons and give learners time to respond or answer questions."

"They should make the English presentation simple so that learners can understand."

These responses about their academic background reveal that most learners may not have passed grade 10 or 12 and may have been out of school for years. English language is their second/third/fourth language and generally poor, especially in writing. For most of them, Oshiwambo is their home language, as well as their first language, while the medium of instruction is English.

Knowles (1990) describes SDL as a process in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate

learning strategies, and evaluating learning outcomes. The most widely accepted approach has been described by Knowles as Andragogy (Knowles, 1990).

Self-directed learning is fostered when implementing appropriate andragogy: In light of the findings of the study and the appropriately applied andragogy, learners can have access to the Edu programs. So, for example, you can be self-directed, but if there are physical constraints and challenges in the pedagogy, the learners will be demotivated to be self-directed.

Theme 4. Recommendations from the Learners

The participants provided some possible recommendations to the college as a means to improve access to the Edu Radio or TV program services. The following are the significant recommendations made by the respondents:

Subthemes 4.1 Provide fliers on Edu Programmes at registration

"NAMCOL must give us the programs while early."

"Put the information in our study packs."

While it is commendable for the advertising efforts of the institution to reach that majority of learners, the institution must make a more significant effort in trying to disseminate the information to the various centers as this is a more cost-effective measure as compared to media advertisement.

Subthemes 4.2 Upload Video/Audio Edu lessons on NAMCOL FB and Youtube

"NAMCOL to upload the lessons on YouTube or FaceBook."

'I can use my cell phone to access the lesson from Facebook."

Learners recommended that the lessons be uploaded on social media networks such as Facebook and YouTube and also for the experiences to be loaded on CDs for the learners. All these significant recommendations all tie in with flexible learning principles highlighting the need of the learners to be able to access these services at the time and place of their choosing. An additional challenge worth noting is that most learners find the lessons to be short and

somewhat fast-paced and therefore recommend the lessons to be made longer and slow-paced. These sentiments are captured in some of the comments made by the learners. So there is a change of use of technology as the audience is younger, requesting for more social media platforms such as Facebook.

Subthemes 4.3 Improve Broadcast Schedules

The sentiments expressed below are from the participant's comments indicating the need to improve the broadcast schedule as adult learners with a vast knowledge of independent learning.

"Increase the duration of Radio Program because the time is too short."

"NAMCOL Tutors must make the learners aware of the Edu TV and Radio programs."

"The duration of Edu TV's specific subject lesson must be increased, and more exercises should be given after each lesson."

"The subject lessons on Edu TV must be broadcast after 17:00 when learners are at home."

Subthemes 4.4 Repeat the weekly broadcast during weekends

"The programs must be broadcast after working hours because some of the NAMCOL students are employed and do not have access to the programs during the day."

"Edu TV and Radio programs must be repeated on weekends when we do not have so many commitments."

Findings from the study highlighting the participants' views in recommending changes to the practices and strategies to accommodate the adult and employed learners.

On self- directed learning, participants indicated that though this also helps them to understand how to solve specific problems, it would be more helpful to give homework and short assignments to encourage them to read more on issues before answering given problems during their own free time.

Summary

This chapter has presented the findings of the study. The main findings are drawn from the questionnaire (see appendix A), as this was the primary method of collecting data, however additional data was collected from 12 telephonic interviews. The study provided biographical information about the learners, which indicated that Ponhofi had a higher number of learners from the urban area, while Eenhana had mostly learners from rural areas. The majority of learners enrolled at these centers are female, and most are unemployed. Besides, the study revealed that 65% of NAMCOL learners were aware of the Edu TV/Radio program, with 67% of those learners indicating that they find both the TV and Radio services useful. The challenges faced by the learners in accessing the services as outlined in section 4.7 and the influence of these services on the learner's self-directed learning was also assessed in this chapter. The following chapter presents the discussion of the findings as well as the conclusion and recommendation.

CHAPTER FIVE

ANALYSIS AND CONCLUSIONS

Introduction

The main research question and purpose of this research study was to explore the access to Edu TV and Radio programs by NAMCOL youth and adult learners enrolled in distance mode. The study further served to investigate the influence that these programs have on the NAMCOL learner's self-directed learning. Thus this chapter discusses the main findings of this study. The discussion is presented according to the following main research questions in the context of the theoretical framework of Andragogy as the art of science of helping adults learn by Malcolm Knowles.

- Do NAMCOL learners at selected NAMCOL centers have access to the Edu TV and Radio lessons?
- What challenges inhibit learners from accessing Edu TV and Radio Educational Programmes?
- Do the NAMCOL Edu TV and Radio programs influence learners' self-directed learning?

Do NAMCOL learners at selected NAMCOL centers have access to the Edu TV and Radio lessons?

This research question was aimed at investigating awareness of Edu TV and Radio lessons by learners, various technological mediums, and level of access NAMCOL learners have to access Edu TV and Radio lessons. Learners to access the Edu TV and radio programs have to be made aware of these opportunities. The findings of the study revealed that the awareness was reached through various media (Newspapers/radio/TV), with 65% of learners indicating that they became aware of the programs via media. The findings showed that 67% of learners have access to one or both of the mediums. Most learners at Eenhana center reside in rural areas and have mostly access to radios only.

In contrast, learners from Ponhofi center reside in urban areas and have opportunities to access TV. By comparing the use of different communication technologies for distance education, the

use of Television and Radio is considered most important. Radio and television both can facilitate distance learners scattered in a wide range of areas (Beukes, 2006).

The findings above confirm the earlier results of Bates (2010), who indicated that many distance education institutions in developing countries, as well as institutions in developed countries such as the British Open University, use broadcast television and radio extensively to deliver programming to a large number of distant learners. This also shows that the initiative of programming of Edu lesson is known and being used by some of the targeted people. As noted by Beukes (2006), the radio initiative is aimed at enhancing education radio broadcasting in the country, and NAMCOL has been assigned to manage this project on behalf of the Ministry of Education and other partners.

The results from the study reveal that a majority of NAMCOL learners (67%) at the selected centers have access to the Edu Radio or TV programs and indicated that the services are useful and they feel supported. All the learners interviewed found the radio and TV lessons informative and further stressed that the lessons encourage them to learn more on their own. Nine of the participants use the information from the experiences as the basis to help them research and read more on the topics to find adequate information necessary for the completion of assignments and preparation for the examination.

What challenges inhibit learners from accessing Edu TV and Radio Educational Programmes?

The study is driven by the notion to find out what challenges inhibit learners from accessing Edu TV and Radio Educational Programmes. The findings in the study indicate that several challenges are facing the learners concerning Edu TV and radio programs. The most significant problem faced by the learners is the lack of electricity, with over 88 participants indicating that they meet this challenge. This is to be expected because the two centers have a high number of learners from rural areas. The other major challenge faced by the learners is the lack of TV and radio signals at their home. Some NAMCOL learners indicated that a lack of an NBC digital decoder, radio set, or TV set made it difficult to follow the broadcasts. In light of the results of the study, it was also found that the majority of students don't get the broadcasts schedule of Edu TV and radio programs. Because of this, they miss the Edu TV or radio programs, and approximately half of the students who view the program cannot note down the essential

features of the program because of slow writing speed and non-availability of recording facilities.

To some extent, the findings above also support the results by Nyandara (2012), that challenges of technology instruction includes, unsupportive mindset, electricity connectivity. Bates (2013) also stated that one of the limitations of this type of distribution is that educational programming is confined to broadcast schedules predetermined by the broadcasting station. These may not be times convenient for students taking the course (Bates, 2013). Access to household radios and TVs can be limited. Ownership is usually a problem even if radios are readily available. It is still difficult for people in rural areas to purchase radios and to get them repaired while the cost of batteries is inhibitive in places without electricity. Reception can be weak in some areas (Van Zyl, 2013).

Do the NAMCOL Edu TV and Radio programs influence learners' self-directed learning?

Knowles (1990) describes SDL as "a process in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes." The most widely accepted approach has been described by Knowles as Andragogy (Knowles, 1990.).

All participants interviewed indicated that the lessons were informative. Furthermore, it helps learners to assume responsibility for their learning. This suggests that the given programs do have a positive effect on SDL since one of the indicators of self-directed learning is that each learner can become motivated and empowered to be more responsive to making meaningful decisions critical to his/her learning journey (Hiemstra, 2014), which is shown by the results given above (Table 4.2).

Learners interviewed further indicated that the programs prompt them to do additional research on the topic and gain more knowledge and encourage them to follow the program schedule. This is another indicator that the programs are working in promoting self-directed learning in learners. Self-directed learning is understood as any form of study that allows learners to have primary responsibility for planning, applying, and analyzing their effort (Hiemstra, 2014). The

programs are helping learners to identify their learning needs, thus prompting them to do further research. The ability of learners to identify their learning need forms part of the definition of SDL as defined by (Knowles, 1990). Learning need is defined as a deficit of information /knowledge between what is already known by the learner and what the learner needs to know, necessary for the learner to perform effectively and prepare for future endeavors (Hiemstra, 2014).

Furthermore, learners use different techniques to capture information, such as taking notes and recording the sessions. This is proving excellent signs of self-directed learning since the only self-directed and motivated person would care to keep the information for future references, which can be useful for assignment completion, examination preparation, and simply enhance one's knowledge. As indicated by the NAMCOL learners, these programs also give them an opportunity for elaboration through research, on the information either acquired from the programs or the programs themselves can elaborate on the information acquired prior to the broadcast. Enhancing the knowledge and reinforcing the memory on the experience gained. Towle and Cottrell (2015), indicated that the information is better captured, understood, and remembered if there is an elaboration opportunity. Which is what the NAMCOL Edu TV and Radio programs are offering the learners.

Conclusion

The main aim of this study was to explore access to flexible learning programs by distance learners at NAMCOL via Educational radio and television. This was done to identify challenges, evaluate the usefulness and influence on self-directed learning of grade 12 learners enrolled on distance mode as well as to provide recommendations for NAMCOL.

The findings of the study revealed that learners are aware of NAMCOL Edu Radio/TV programs (65%) and that about (67%) of these learners make use of the services. While it is commendable for 65% of the learners to be aware of the services it is clear that more significant efforts need to be made by NAMCOL to ensure that all of its distance learners are aware of the services and for them to be encouraged to make use of these services as well.

The challenge most frequently encountered by the learners at the selected NAMCOL centers is the lack of electricity closely followed by a lack of radio and television signals and television

sets not connected to NBC digital decoders. The challenge of a lack of electricity is most common because the selected NMCOL centers are located in rural areas, and this would not be encountered by centers located in urban areas, for instance. The same would apply to the lack of radio and television signals.

Self-directed learning is fostered when implementing appropriate andragogy: In the light of the findings of the study and the andragogy applied is appropriate. Learners can have access to Edu programs. However, the old-fashioned ways of teaching and learning make it challenging to learn with a lack of physical and proper technologies. So, for example, you can be self-directed, but if there are physical constraints and challenges in the pedagogy, the learners will be demotivated to be self-directed.

Recommendations

The study is recommending that the college include flyers explaining the additional resources available in the study package and at registration points and during orientation workshops. Digital marketing – uploading broadcast schedules on the NAMCOL website, Facebook, and other relevant social media. All these significant recommendations tie in with flexible learning principles highlighting the need of the learners to be able to access these services at the time and place of their choosing. These sentiments are captured in some of the comments made by the learners, so there is a change of use of technology as the audience is younger, asking for more social media platforms such as Facebook.

Areas for further study

This study was done at two NAMCOL centers, which are based in Northern Namibia. Therefore, studies need to be conducted in other regions in Namibian to:

- Compare the findings to have a holistic understanding of access and influence of Edu TV and radio program on the learners' self-directed learning among the grade 12 learners at Namibian College of Open Learning (NAMCOL)
- Further studies could be conducted to measure academic performance among learners who use Edu TV and radio lessons and learners who do not have access to Edu programs.

Summary

This chapter presented a summary of the main findings emanating from the study. The discussion is presented according to the main research questions in the context of the theoretical framework of Andragogy as the art of science of helping adults learn by Malcolm Knowles, coupled with self-directed adult learning concepts. It also presented recommendations and areas for further research.

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APPENDIX A: QUESTIONNAIRE

Dear Learner – you are given this questionnaire to complete as part of my research study into how grade 12 learners access Edu TV and Radio in the NAMCOL program for grade 12 learners.

1. I hope that you will complete this questionnaire as it will help in the completion of the thesis that will inform NAMCOL about your views and challenges with accessing the Edu TV and Radio based learning programs offered by NAMCOL.
2. You need not fill in your name as the questionnaire is anonymous, i.e., your name will not be made public in the research findings.
3. The questionnaire will take you about 30 minutes to complete, and please return it as soon as you complete it or before leaving the NAMCOL center.

Questionnaire on:

Exploring access to Edu TV and Radio based flexible learning programs by NAMCOL youth and adults enrolled on distance mode for grade 12 at NAMCOL in Ohangwena region, Namibia

Study Area: Ponhofi ☐ Eenhana ☐

Date: ……

INSTRUCTIONS: Please complete in the spaces provided.

STUDENT PROFILE

1. Area of residence (rural or urban): **……..**

2. What is your Age:

3. Gender: …….

4. Employment Status: ……

5. How many subjects have you enrolled with NAMCOL?

……..

RESEARCH INFORMATION

6. Are you aware of the NAMCOL Edu TV and Radio Programs?

……
…….

7. If you are aware, where did you hear or learn about Edu TV and Radio program?

……
……

8. Which media do you have access to?

……
……

9. And where do you access it?

……
…….

10. Do you watch Edu TV or listen to Radio Programs?

……
……

11. If your answer in no:10 is yes, which Program do you use?

……
……

12. How often do you watch or listen to the Edu TV or Radio programs? ……

……

13. Do you have any challenges that prohibit or limit you from watching or listening to the Edu TV and Radio programs?

……..

……
……
…….....

14. What are the challenges that prohibit or limit you from watching or listening to the Edu TV and Radio programs?

……
……
……
…….

15. If you watch the Edu TV or listen to Edu Radio program, how supporting is it to your learning?

……
……
……
……
……

16. What do you suggest NAMCOL should do to provide better learning support to you as a learner?

.....

.....
.....
.....
.....

Thank you for taking the time to participate in this study.

APPENDIX B: CONSENT FORM

CONSENT FORM

For the study which explores access to Edu TV and radio-based flexible learning programs by NAMCOL youth and adults enrolled on distance mode for grade 12 at NAMCOL in Ohangwena Region, Namibia

Dear Participant

I am Erestine Nenghwanya, the area coordinator at NAMCOL. I am a Master's student specializing in Adult Education at the University of Cape Town (UCT). I am collecting information for a study that explores access to Edu TV and Radio base flexible learning programs by NAMCOL youth and adults enrolled in distance mode for grade 12 in Ohangwena Region.

The study will provide empirical evidence on the access issues which are generally taken for granted by designers of these programs and will suggest recommendations to NAMCOL areas of improvement in terms of Edu TV and Radio program. I am collecting information about your views, experiences, and opinions. The benefit to the NAMCOL and youth from this research is that it aims to help inform the different parties about the learner's views on the Edu TV and Radio based learning programs offered by NAMCOL.
Data collection will be done during April and May 2017 in the form of questionnaires and watching and listening to the Edu TV and Radio programs for one week.

Participation is voluntary, and the learners' confidentiality is guaranteed. The learners will be given pseudonyms (different names), and pseudonyms will be used for all participants in the writing up of the research.

You may withdraw permission for participating in this research at any time.

COMPLETE THE CONSENT SLIP

Please circle the preferred answer YES or NO in the slip below to indicate your participation and consent for the research. You are welcome to ask any questions regarding this research by telephone or email; my contact details are: email: kapandukapax@gmail.com and telephone number is: +264 65240031

I consent to fill in the questionnaire: ☐ YES or ☐ NO

If you are willing to participate, can you please indicate below that you have understood what the study is about and that your consent is given.

Name and Surname: …….

Signature: ……..

APPENDIX C: INFORMATION FORM

INFORMATION FORM

You are asked to participate in a study that explores access to Edu TV and Radio base flexible learning program by Namibian College of Open learning (NAMOL) youth and adults enrolled on distance mode for grade 12 at NAMCOL in Ohangwena region.

The study will provide empirical evidence on access issues that are generally taken for granted by designers of these programs and will suggest recommendations to NAMCOL areas for improvement in terms of Edu TV and Radio programs. My name is Erestine Nenghwanya, and I am the area coordinator at NAMCOL. My contact details are Email: kapandukapax@gmail.com and telephone +264 65240031.

I am a Master's student specializing in Adult Education at the University Of Cape Town (UCT). I am supervised by Dr. Salma Ismail, a lecture in the School of Education at the University of Cape Town, South Africa. This research study is being taken as part of the fulfillment of a Masters of Education Degree study with a specialist in Adult Education. My supervisor can be conducted on the following email address for any clarity when needed: salma.ismail@utc.ac.za.

What will happen in this study?

Questionnaires will be used to collect data from you. It will explore how NAMCOL learners at a selected NAMCOL Centre access the Edu TV and Radio lessons and what challenges inhibit learners from accessing the Edu TV and Radio Educational programs and the possible solution to these problems. The questionnaires will take 30 minutes of your time.

What will happen with the information?

All the information I collect will be confidential. I will not use your name in the transcripts or the final report or the e-book publication. The final report will anonymize reporting such that it will not be possible to identify an individual in the report.

Voluntary

Your participation is entirely voluntary. There will be no adverse consequences if you decide you do not want to participate or wish to discontinue your participation.

Benefits and harms

The questionnaire will collect information about your views, experience, and opinion. It should not cause you any distress or harm. If at any time you wish to stop your participation because of discomfort, you are free to do so, the benefits of this study to NAMCOL and the youth is that it will help to inform the different parties about learners' views on the use of Edu TV and Radio Base learning programs offered by NAMCOL.

Sincerely,

Erestine Nenghwanya

APPENDIX D: OFFICIAL LETTER TO DO RESEARCH

SCHOOL OF EDUCATION
Dr Salma Ismail
Associate Professor
University of Cape Town, Private Bag X3, Rondebosch, 7701
Email:Salma.Ismail@uct.ac.za;
Internet:www.uct.ac.za/depts./educate
Tel: +27 (0) 21 6503253……. Fax: +27 (0) 21 650 3489
Internet: www.education.uct.ac.za

19th April 2017

To Whom It May Concern

This letter serves to confirm that Mrs. Erestine Nenghwanya student number NNGERE001 is a registered Master's student at the University of Cape Town, specializing in Adult Education.

I am her supervisor and would like to request Erestine's behalf permission from NAMCOL for her to conduct her research, which will involve questionnaires and observations with some informal discussions.

Her research for her thesis explores access to Edu TV and Radio based flexible learning programs offered by Namibian College of Open Learning (NAMCOL) to youth and adults enrolled on a distance mode of learning for grade 12 at NAMCOL in Ohangwena region.

One of the areas of this study will provide empirical evidence on access issues that are generally taken for granted by designers of these programs and will suggest recommendations to NAMCOL areas for improvement in terms of Edu TV and Radio programs.

Erestine Nenghwanya is the area coordinator at NAMCOL and is therefore appropriately placed to undertake such a study. Her contact details are Email: kapandukapax@gmail.com and telephone +264 65240031.

I can be conducted on the following email address if any further clarity is required. salma.ismail@utc.ac.za.

Please see the attached research proposal, information, and consent letter. We would appreciate your co-operation in this critical study.

Yours sincerely,

Associate Professor Salma Ismail

Signature Removed

APPENDIX E: APPROVAL TO CONDUCT RESEARCH AT SELECTED NAMCOL CENTRES

NAMCOL

Private Bag 15008, Katutura, Windhoek
Tel: + 264-61-320 5111, Fax: + 264-61-216 987
www.namcol.edu.na

8 May 2017

Ms Ernestine Nenghwanya
Private Bag 15008
Katutura
WINDHOEK

Dear Ms Nenghwanya

RE: REQUEST TO CONDUCT YOUR RESEARCH ON NAMCOL

Your letter dated 24 April 2017 concerning the above subject matter is hereby acknowledged with gratitude.

I have the pleasure to inform you that your request to conduct research "to explore access to Education TV and Radio based flexible learning programme" at NAMCOL is considered positively. You are further requested to submit a copy of the dissertation to NAMCOL upon completion of your studies.

I wish you all the best with your academic career.

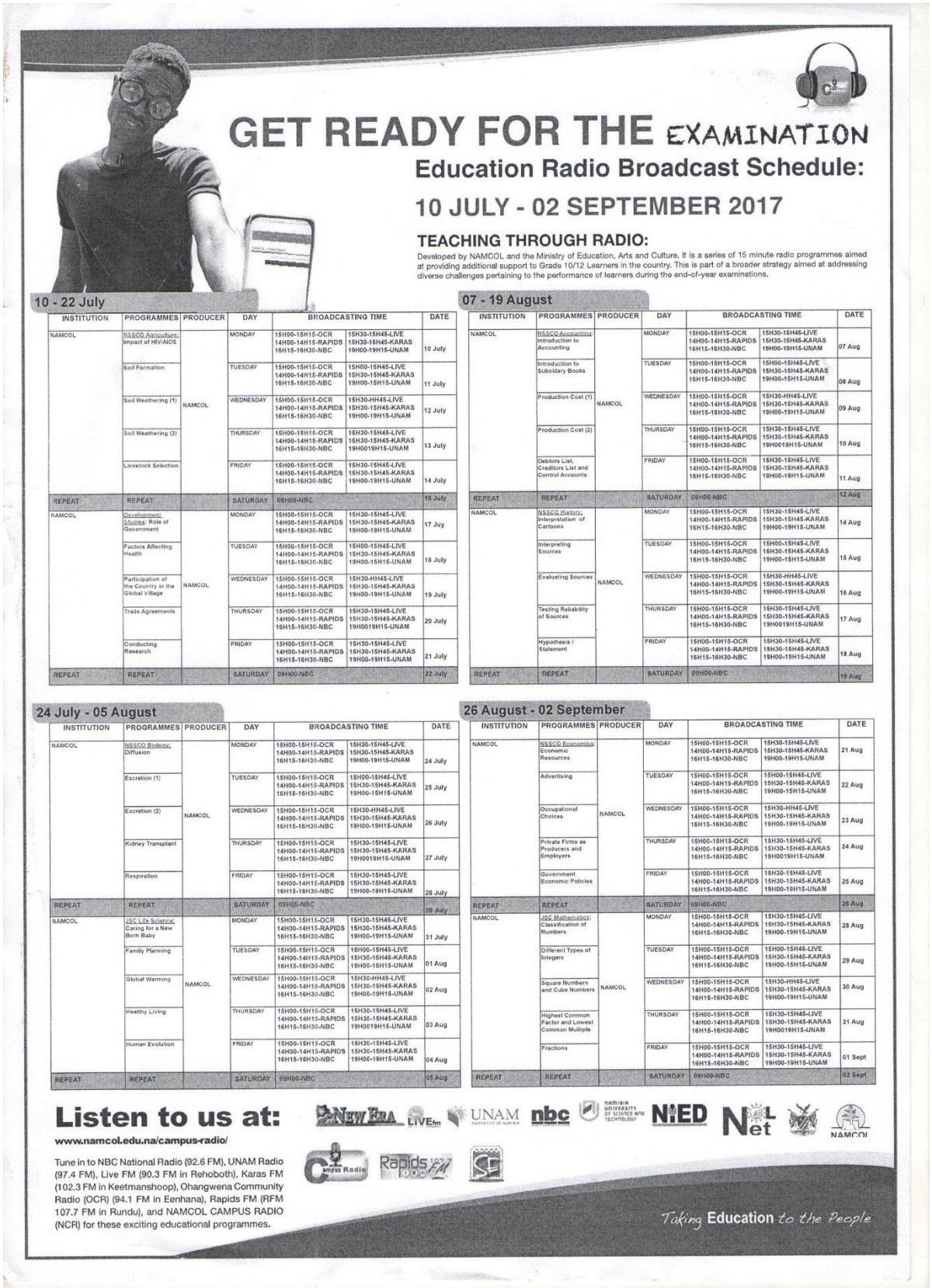
Yours sincerely,

Signature Removed

H V Murangi
DIRECTOR

NAMCOL DIRECTOR'S OFFICE
08 -05- 2017
PRIVATE BAG 15008
KATUTURA, WINDHOEK
NAMIBIA COLLEGE OF OPEN LEARNING

APPENDIX F: EDU RADIO BROADCAST SCHEDULE (10 JULY – 02 SEPTEMBER 2017)



GET READY FOR THE EXAMINATION

Education Radio Broadcast Schedule:

10 JULY - 02 SEPTEMBER 2017

TEACHING THROUGH RADIO:

Developed by NAMCOL and the Ministry of Education, Arts and Culture. It is a series of 15 minute radio programmes aimed at providing additional support to Grade 10/12 Learners in the country. This is part of a broader strategy aimed at addressing diverse challenges pertaining to the performance of learners during the end-of-year examinations.

10 - 22 July

INSTITUTION	PROGRAMMES	PRODUCER	DAY	BROADCASTING TIME		DATE
NAMCOL	NSSCO Agriculture: Impact of HIV/AIDS	NAMCOL	MONDAY	15H00-15H15-OCR 14H00-14H15-RAPIDS 16H15-16H30-NBC	15H30-15H45-LIVE 15H30-15H45-KARAS 19H00-19H15-UNAM	10 July
	Soil Formation		TUESDAY	15H00-15H15-OCR 14H00-14H15-RAPIDS 16H15-16H30-NBC	15H00-15H45-LIVE 15H30-15H45-KARAS 19H00-15H15-UNAM	11 July
	Soil Weathering (1)		WEDNESDAY	15H00-15H15-OCR 14H00-14H15-RAPIDS 16H15-16H30-NBC	15H30-HH45-LIVE 15H30-15H45-KARAS 19H00-19H15-UNAM	12 July
	Soil Weathering (2)		THURSDAY	15H00-15H15-OCR 14H00-14H15-RAPIDS 16H15-16H30-NBC	15H30-15H45-LIVE 15H30-15H45-KARAS 19H0019H15-UNAM	13 July
	Livestock Selection		FRIDAY	15H00-15H15-OCR 14H00-14H15-RAPIDS 16H15-16H30-NBC	15H30-15H45-LIVE 15H30-15H45-KARAS 19H00-19H15-UNAM	14 July
REPEAT	REPEAT		SATURDAY	09H00-NBC		15 July
NAMCOL	Development Studies: Role of Government	NAMCOL	MONDAY	15H00-15H15-OCR 14H00-14H15-RAPIDS 16H15-16H30-NBC	15H30-15H45-LIVE 15H30-15H45-KARAS 19H00-19H15-UNAM	17 July
	Factors Affecting Health		TUESDAY	15H00-15H15-OCR 14H00-14H15-RAPIDS 16H15-16H30-NBC	15H00-15H45-LIVE 15H30-15H45-KARAS 19H00-15H15-UNAM	18 July
	Participation of the Country in the Global Village		WEDNESDAY	15H00-15H15-OCR 14H00-14H15-RAPIDS 16H15-16H30-NBC	15H30-HH45-LIVE 15H30-15H45-KARAS 19H00-19H15-UNAM	19 July
	Trade Agreements		THURSDAY	15H00-15H15-OCR 14H00-14H15-RAPIDS 16H15-16H30-NBC	15H30-15H45-LIVE 15H30-15H45-KARAS 19H0019H15-UNAM	20 July
	Conducting Research		FRIDAY	15H00-15H15-OCR 14H00-14H15-RAPIDS 16H15-16H30-NBC	15H30-15H45-LIVE 15H30-15H45-KARAS 19H00-19H15-UNAM	21 July
REPEAT	REPEAT		SATURDAY	09H00-NBC		22 July

07 - 19 August

INSTITUTION	PROGRAMMES	PRODUCER	DAY	BROADCASTING TIME		DATE
NAMCOL	NSSCO Accounting: Introduction to Accounting	NAMCOL	MONDAY	15H00-15H15-OCR 14H00-14H15-RAPIDS 16H15-16H30-NBC	15H30-15H45-LIVE 15H30-15H45-KARAS 19H00-19H15-UNAM	07 Aug
	Introduction to Subsidary Books		TUESDAY	15H00-15H15-OCR 14H00-14H15-RAPIDS 16H15-16H30-NBC	15H00-15H45-LIVE 15H30-15H45-KARAS 19H00-15H15-UNAM	08 Aug
	Production Cost (1)		WEDNESDAY	15H00-15H15-OCR 14H00-14H15-RAPIDS 16H15-16H30-NBC	15H30-HH45-LIVE 15H30-15H45-KARAS 19H00-19H15-UNAM	09 Aug
	Production Cost (2)		THURSDAY	15H00-15H15-OCR 14H00-14H15-RAPIDS 16H15-16H30-NBC	15H30-15H45-LIVE 15H30-15H45-KARAS 19H0019H15-UNAM	10 Aug
	Debtors List, Creditors List and Control Accounts		FRIDAY	15H00-15H15-OCR 14H00-14H15-RAPIDS 16H15-16H30-NBC	15H30-15H45-LIVE 15H30-15H45-KARAS 19H00-19H15-UNAM	11 Aug
REPEAT	REPEAT		SATURDAY	09H00-NBC		12 Aug
NAMCOL	NSSCO History: Interpretation of Cartoons	NAMCOL	MONDAY	15H00-15H15-OCR 14H00-14H15-RAPIDS 16H15-16H30-NBC	15H30-15H45-LIVE 15H30-15H45-KARAS 19H00-19H15-UNAM	14 Aug
	Interpreting Sources		TUESDAY	15H00-15H15-OCR 14H00-14H15-RAPIDS 16H15-16H30-NBC	15H00-15H45-LIVE 15H30-15H45-KARAS 19H00-15H15-UNAM	15 Aug
	Evaluating Sources		WEDNESDAY	15H00-15H15-OCR 14H00-14H15-RAPIDS 16H15-16H30-NBC	15H30-HH45-LIVE 15H30-15H45-KARAS 19H00-19H15-UNAM	16 Aug
	Testing Reliability of Sources		THURSDAY	15H00-15H15-OCR 14H00-14H15-RAPIDS 16H15-16H30-NBC	15H30-15H45-LIVE 15H30-15H45-KARAS 19H0019H15-UNAM	17 Aug
	Hypothesis / Statement		FRIDAY	15H00-15H15-OCR 14H00-14H15-RAPIDS 16H15-16H30-NBC	15H30-15H45-LIVE 15H30-15H45-KARAS 19H00-19H15-UNAM	18 Aug
REPEAT	REPEAT		SATURDAY	09H00-NBC		19 Aug

24 July - 05 August

INSTITUTION	PROGRAMMES	PRODUCER	DAY	BROADCASTING TIME		DATE
NAMCOL	NSSCO Biology: Diffusion	NAMCOL	MONDAY	15H00-15H15-OCR 14H00-14H15-RAPIDS 16H15-16H30-NBC	15H30-15H45-LIVE 15H30-15H45-KARAS 19H00-19H15-UNAM	24 July
	Excretion (1)		TUESDAY	15H00-15H15-OCR 14H00-14H15-RAPIDS 16H15-16H30-NBC	15H00-15H45-LIVE 15H30-15H45-KARAS 19H00-15H15-UNAM	25 July
	Excretion (2)		WEDNESDAY	15H00-15H15-OCR 14H00-14H15-RAPIDS 16H15-16H30-NBC	15H30-HH45-LIVE 15H30-15H45-KARAS 19H00-19H15-UNAM	26 July
	Kidney Transplant		THURSDAY	15H00-15H15-OCR 14H00-14H15-RAPIDS 16H15-16H30-NBC	15H30-15H45-LIVE 15H30-15H45-KARAS 19H0019H15-UNAM	27 July
	Respiration		FRIDAY	15H00-15H15-OCR 14H00-14H15-RAPIDS 16H15-16H30-NBC	15H30-15H45-LIVE 15H30-15H45-KARAS 19H00-19H15-UNAM	28 July
REPEAT	REPEAT		SATURDAY	09H00-NBC		29 July
NAMCOL	JSC Life Science: Caring for a New Born Baby	NAMCOL	MONDAY	15H00-15H15-OCR 14H00-14H15-RAPIDS 16H15-16H30-NBC	15H30-15H45-LIVE 15H30-15H45-KARAS 19H00-19H15-UNAM	31 July
	Family Planning		TUESDAY	15H00-15H15-OCR 14H00-14H15-RAPIDS 16H15-16H30-NBC	15H00-15H45-LIVE 15H30-15H45-KARAS 19H00-15H15-UNAM	01 Aug
	Global Warming		WEDNESDAY	15H00-15H15-OCR 14H00-14H15-RAPIDS 16H15-16H30-NBC	15H30-HH45-LIVE 15H30-15H45-KARAS 19H00-19H15-UNAM	02 Aug
	Healthy Living		THURSDAY	15H00-15H15-OCR 14H00-14H15-RAPIDS 16H15-16H30-NBC	15H30-15H45-LIVE 15H30-15H45-KARAS 19H0019H15-UNAM	03 Aug
	Human Evolution		FRIDAY	15H00-15H15-OCR 14H00-14H15-RAPIDS 16H15-16H30-NBC	15H30-15H45-LIVE 15H30-15H45-KARAS 19H00-19H15-UNAM	04 Aug
REPEAT	REPEAT		SATURDAY	09H00-NBC		05 Aug

26 August - 02 September

INSTITUTION	PROGRAMMES	PRODUCER	DAY	BROADCASTING TIME		DATE
NAMCOL	NSSCO Economics: Economic Resources	NAMCOL	MONDAY	15H00-15H15-OCR 14H00-14H15-RAPIDS 16H15-16H30-NBC	15H30-15H45-LIVE 15H30-15H45-KARAS 19H00-19H15-UNAM	21 Aug
	Advertising		TUESDAY	15H00-15H15-OCR 14H00-14H15-RAPIDS 16H15-16H30-NBC	15H00-15H45-LIVE 15H30-15H45-KARAS 19H00-15H15-UNAM	22 Aug
	Occupational Choices		WEDNESDAY	15H00-15H15-OCR 14H00-14H15-RAPIDS 16H15-16H30-NBC	15H30-HH45-LIVE 15H30-15H45-KARAS 19H00-19H15-UNAM	23 Aug
	Private Firms as Producers and Employers		THURSDAY	15H00-15H15-OCR 14H00-14H15-RAPIDS 16H15-16H30-NBC	15H30-15H45-LIVE 15H30-15H45-KARAS 19H0019H15-UNAM	24 Aug
	Government Economic Policies		FRIDAY	15H00-15H15-OCR 14H00-14H15-RAPIDS 16H15-16H30-NBC	15H30-15H45-LIVE 15H30-15H45-KARAS 19H00-19H15-UNAM	25 Aug
REPEAT	REPEAT		SATURDAY	09H00-NBC		26 Aug
NAMCOL	JSC Mathematics: Classification of Numbers	NAMCOL	MONDAY	15H00-15H15-OCR 14H00-14H15-RAPIDS 16H15-16H30-NBC	15H30-15H45-LIVE 15H30-15H45-KARAS 19H00-19H15-UNAM	28 Aug
	Different Types of Integers		TUESDAY	15H00-15H15-OCR 14H00-14H15-RAPIDS 16H15-16H30-NBC	15H00-15H45-LIVE 15H30-15H45-KARAS 19H00-15H15-UNAM	29 Aug
	Square Numbers and Cube Numbers		WEDNESDAY	15H00-15H15-OCR 14H00-14H15-RAPIDS 16H15-16H30-NBC	15H30-HH45-LIVE 15H30-15H45-KARAS 19H00-19H15-UNAM	30 Aug
	Highest Common Factor and Lowest Common Multiple		THURSDAY	15H00-15H15-OCR 14H00-14H15-RAPIDS 16H15-16H30-NBC	15H30-15H45-LIVE 15H30-15H45-KARAS 19H0019H15-UNAM	31 Aug
	Fractions		FRIDAY	15H00-15H15-OCR 14H00-14H15-RAPIDS 16H15-16H30-NBC	15H30-15H45-LIVE 15H30-15H45-KARAS 19H00-19H15-UNAM	01 Sept
REPEAT	REPEAT		SATURDAY	09H00-NBC		02 Sept

Listen to us at:

www.namcol.edu.na/campus-radio/

Tune in to NBC National Radio (92.6 FM), UNAM Radio (97.4 FM), Live FM (90.3 FM in Rehoboth), Karas FM (102.3 FM in Keetmanshoop), Ohangwena Community Radio (OCR) (94.1 FM in Eenhana), Rapids FM (RFM 107.7 FM in Rundu), and NAMCOL CAMPUS RADIO (NCR) for these exciting educational programmes.

Taking Education to the People

APPENDIX H: QUESTIONNAIRE ANALYSIS (RAW DATA)

Learners' Profile													
1. Area of Residence		2. Age Group				3. Gender		4. Employment Status		5. # Subjects			
Rural	Urban	18-25	26-35	36-50	above 50	Male	Female	Employed	Un-employed	1	2	3	more
114	111	201	24	0	0	54	171	14	211	34	114	76	1

Learners general awareness' of Edu TV/Radio Programs			
6. Program awareness	7. How you Know	8.1 Which media do you have access to	8.2 Where do you access the media

Yes	No	NAMCOL	Media (TV/Radio/ Newspaper)	Fellow Students	Radio	TV	Both	None	Home	Family/ Friends	Work	NAMCOL Centre
169	56	22	127	20	58	52	54	5	129	24	7	9

Learners' usage of Edu TV/Radio Programs								
9. Do you use the Edu TV and Radio programs		10. which do you use			11. How often			
Yes	No	TV	Radio	Both	very often	often	not often	not at all
149	20	49	62	38	32	88	29	0

12. Challenges faced									
No Elec	No NBC Decoder	No Radio	No TV	No Broadcast schedule	No Radio/TV Signal	No TV Schedule	Time Table Clash	Do not understand English	Other reasons
82	58	57	56	48	75	22	78	23	0

The usefulness of the Edu TV/Radio programs							
13. How supportive is the Edu TV Program				14. How supportive is the Edu Radio Program			
Very Supportive	Supportive	Neutral	Very/Unsupportive	Very Supportive	Supportive	Neutral	Very/Unsupportive
44	34	4	5	46	45	7	2

15. Recommendations					
Provide CD Recordings	Upload Lessons to YouTube/ Facebook	Repeat the weekly broadcasting on weekends	Provide alternative	Improve Broadcast schedule	Others
77	79	89	57	18	0